THE MAGAZINE OF

Standards

America's Growing Offices—
How to measure their rentable areas (page 80)

MARCH
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Standards

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MARGINAL NOTES

Guard Against Hurricanes—

As blooming crocuses and pussy willows inform the Northeastern states that spring and summer are well on the way, thoughts of the entire country turn to wind and weather damage as well as to bright flowers, warm sun, and soft breezes. The memory of hurricane winds, millions of dollars damage, and hundreds of deaths cannot help but mar thoughts of summer fun.

It is not easy to guard against damage caused by hurricanes, but in this issue George N. Thompson, formerly with the National Bureau of Standards, describes an American Standard for use by building code departments that contains the most up-to-date data on minimum requirements for wind loads. Communities that until recently have not had to prepare for hurricanes will find it helpful to consult this guide for the loads on which all building designs should be based. Other American Standards give information on the strength of materials and constructions for meeting these loads—on structural steel, A57.1-1952; on masonry, A41.1-1953; on reinforced concrete, A89.1-1951.

The new standard includes up-to-date data, certainly, but our knowledge of the effect of hurricane winds is still limited. The National Bureau of Standards, sponsor for the American Standard on Minimum Design Loads, has already set up machinery for investigating the subject more thoroughly. As one means of collecting data needed, the National Bureau of Standards and the Navy are now developing an automatic weather station that can be parachuted into the eye of a hurricane to radio back information about wind speed and direction, barometric pressure, and air and water temperature. Carrying the research a step further, the Bureau is constructing a newly designed weather station for larger scale tests during the 1956 hurricane season.

Standards in Southeast Asia—

As Secretary of State John Foster Dulles attends the Council of For-

eign Ministers of the nations allied in the Southeast Asia Collective Defense Treaty, it may be of interest to note the development of standardization in that part of the world. As reported by the ECAFE Executive Secretary to the Economic Commission for Asia and the Far East in January, 1956, national standards organizations are in active operation in India, Indonesia, Japan, and Pakistan. All are members of the International Organization for Standardization and participate directly in its work.

Some standards are prescribed by governments of other countries in the area for their main exports—Burma, rice; Ceylon, papain, rubber; Malaya and British Borneo, rubber, timber, pineapple; Philippines, copra, kapok, commercial shells, hemp, unsplit rattan, and button blanks; Thailand, rice, teak, shellac.

Dr Lal C. Verman, director of the Indian Standards Institution has been named by the International Organization for Standardization as liaison officer to ECAFE.

The Front Cover

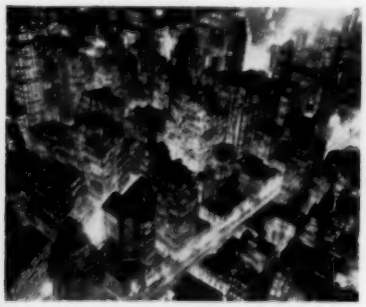


Photo Consolidated Edison Co., N. Y.

The New York City skyline here symbolizes all buildings throughout the country that are considered in developing an American Standard in the building field. This issue features two such American Standards —minimum design loads for buildings (page 69); and how to measure rentable areas in office buildings (page 80). These are only two in the long list of American Standards that include building code requirements, standards and tests for materials, and safety standards for construction.

This Month's Standards Personality

R. C. SOGGE has an unusual record in the electrical industry—trained as a lawyer; 28 years in sales; now head of engineering standards activities in his company, his industry, and internationally.

An able administrator, the work he has done as Manager of Engineering Standards Service for General Electric has, in the opinion of many, placed GE in the forefront of company standards work.

Oddly enough, Mr Sogge studied law, not engineering, in college. He has an LL.B degree, from Ohio Northern University, and an LL.M degree, from John Marshall School of Law. A licensed Professional Engineer, and a Fellow of the American Institute of Electrical Engineers, he holds scholarship keys from two law fraternities. He was a staff radio officer and a reserve military aviator in World War I.

Mr Sogge has had a broad experience in GE—starting on GE test, working on transformer sales, Pittsfield; in electrical utility sales, Cleveland Office; and transferring to the main plant, Schenectady, in 1925. His progress was steady—Assistant to the Manager of the Central Stations Department; Manager, Customer Division, Central Stations Department; Assistant Manager, Central Station Division; Apparatus Department; and in 1947 Manager, Standards Division, Executive Department (now the Engineering Standards Service).

Although Mr Sogge's headquarters are now in New York with the Vice-President of the Engineering Services Division, his department still operates from Schenectady, as a consulting service on standards to all G-E plants, and as a central source for preparation of G-E's Standards Books.

His influence has been felt in his industry, too, as chairman of the important Codes and Standards Committee of the National Electrical Manufacturers Association. NEMA's rules make it impossible for a chairman to stay in office for more than three consecutive terms. Mr Sogge's service to the committee has been so outstanding that he has been re-elected for additional terms, alternating with other chairmen.

When a Survey Committee was set up after World War II to study the American Standards Association, G-E's C. E. Wilson loaned Mr Sogge to the committee. He did much of the spade work used in the report.

Mr Sogge is president of the United States National Committee of the International Electrotechnical Commission, and has played an important role in bringing about more active USA participation in IEC work. One of the highlights of his career so far is the IEC Golden Jubilee at Philadelphia in 1954. His leadership helped make the Jubilee an event of world-wide importance, marking up a 50-year IEC record for number of committee meetings and participants.

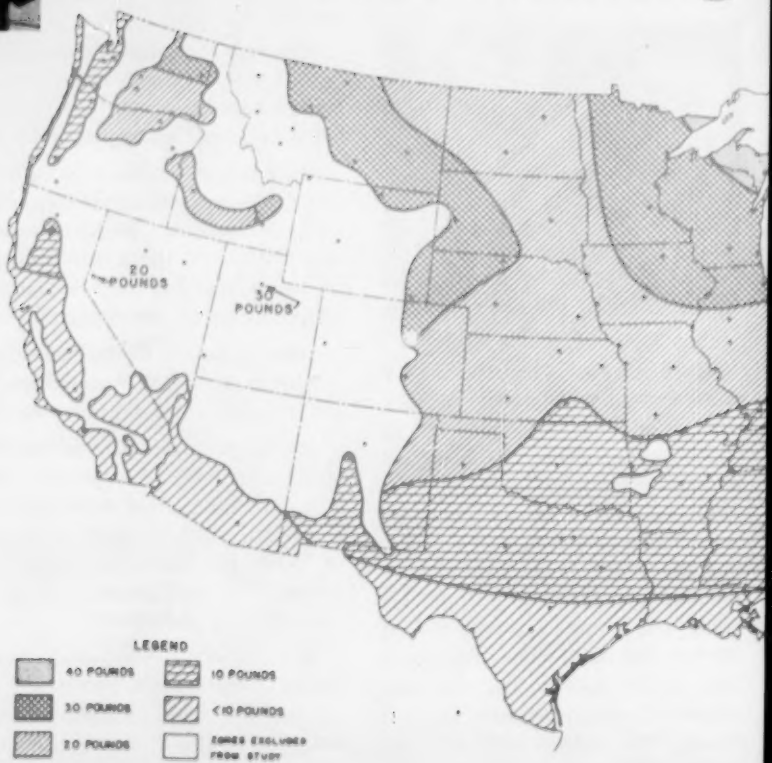
A camp in the Adirondacks keeps Mr Sogge and his wife well occupied. Much of the camp is handmade by Mr Sogge himself. When not working on new buildings, furnishings, and landscaping, Mr Sogge falls back on color photography, or visits his son, daughter, and grandchildren on the West Coast.

OHIO—During a series of windstorms that hit Ohio in 1955, the brick front wall of this Cleveland apartment building was torn away.

These are Wide World Photos

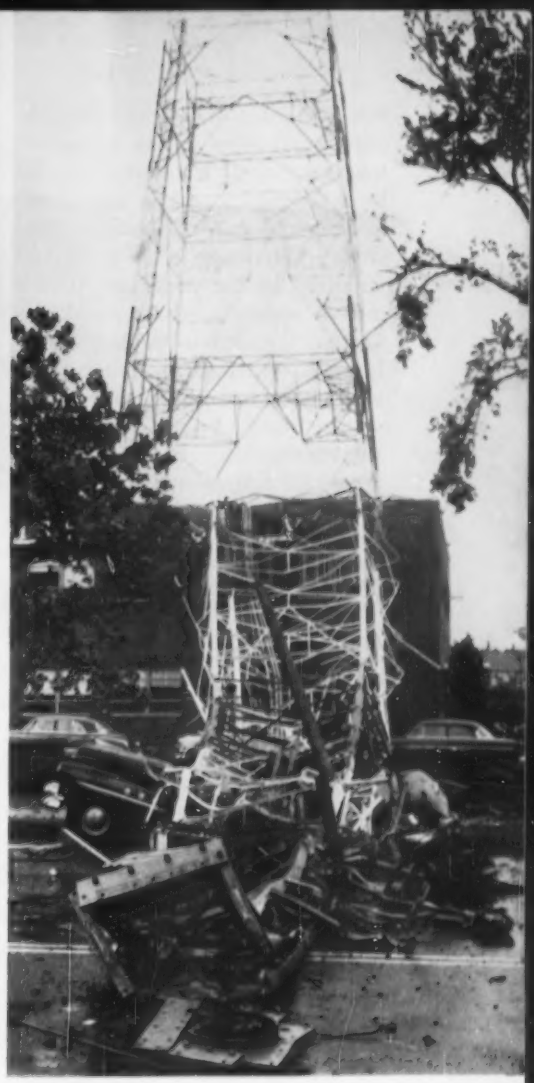
NEW HAMPSHIRE—Roof and walls of building supply company's plant collapsed when Hurricane Edna struck at Salem Depot, New Hampshire. New American Standard gives most comprehensive data now available on wind loads due to hurricanes.

How Strong



WIND IS NOT THE ONLY FORCE that must be considered in designing a building. This map, reproduced from American Standard A 58.1-1955, shows weight of snow that can be expected throughout USA.

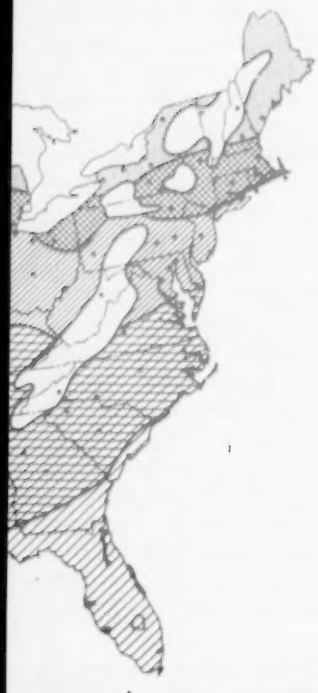
TENNESSEE—Windstorm caused this damage to buildings in Collierville in 1955. Gusts measured up to 57 miles per hour, about 18 miles per hour below minimum hurricane force. Damage was set unofficially at $400,000.



MASSACHUSETTS—Radio and TV tower of Station WBZ-TV, Boston, was wrecked during hurricane. New American Standard includes data to help in design of towers, outdoor signs, and similar structures.

Must a Building Be?

by GEORGE N. THOMPSON



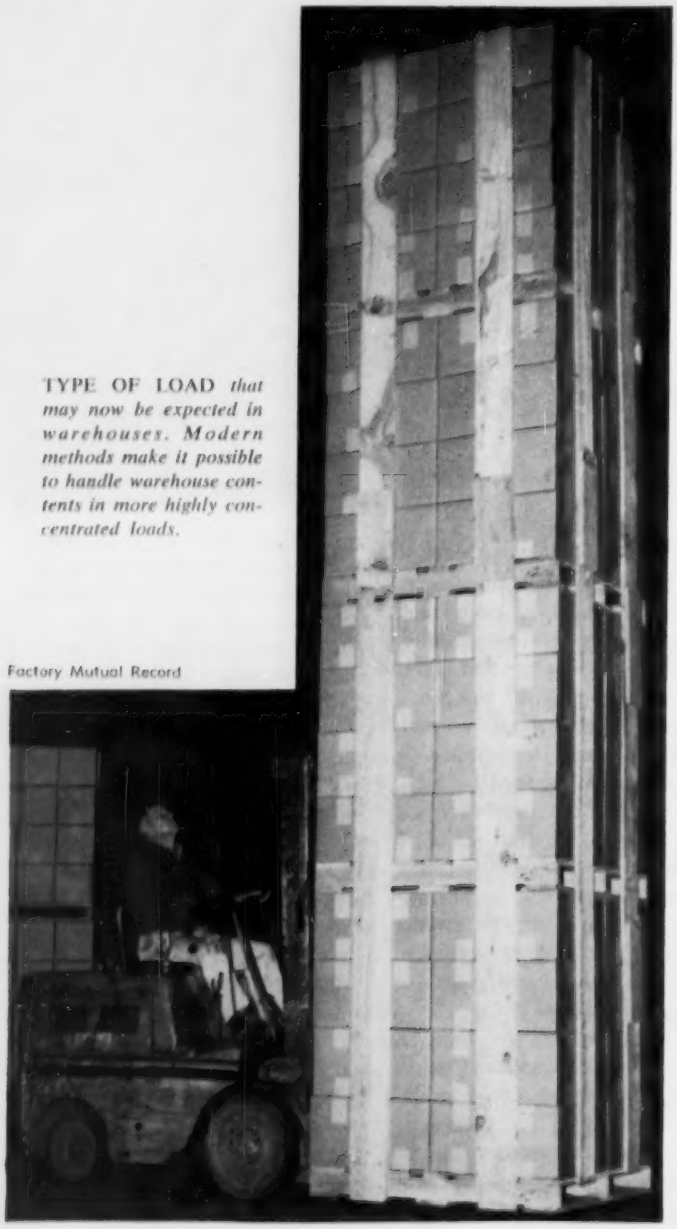
IN the light of recent events, architects, building officials, insurance companies, and building occupants have good reason to review critically the way in which buildings and other structures are designed to resist windstorms of more than normal force. One has only to inspect pictures of destruction caused by such storms to realize that a too-easy acceptance of rule-of-thumb assumptions may lead to loss of roofs, overturning of houses, occasional toppling of radio and TV towers, and a variety of other effects that may lead not only to costly repairs but to injuries and loss of life.

Wind forces are only one form of load that must be considered when a building is designed. Other loads, such as those created by furniture, machinery, and occupants must receive attention. Nature makes a further contribution in the form of snow and, in some cases, of earthquakes. Some of these loads do not vary greatly from one part of the country to another, while others have a wide range of magnitude and consequent effects. It is the responsibility of designers and of building officials to see that proper allowance is made for them.

Through local building codes, building officials enforce minimum requirements as to design loads, so that safety may be assured. The source of these requirements cannot always be readily traced. In recent years, the trend has been to follow one of the several model building codes that are having such a bene-

ficial influence on improvement in code requirements. The organizations responsible for these codes, in turn, depend on various sources of information, one of which is the series of building code standards approved by the American Standards Association. These standards are not intended to be completely inflexible. Where necessary they recognize the existence of materials of varying quality and natural forces of varying magnitude, but they provide a base for normal requirements and indicate when modifications may be warranted.

Mr Thompson was chairman of Sectional Committee A58 on Building Code Requirements for Minimum Design Loads from the time it was first organized in 1938 until after completion of the present edition of the standard. He was chairman of the ASA's Building Code Correlating Committee (now the Construction Standards Board) for five years, from 1944 to 1949, and served as a member of the Standards Council. Mr Thompson was chief of the Codes and Specifications Section of the Building Technology Division of the National Bureau of Standards and a'so served as assistant chief of the Division. He had been with the National Bureau of Standards for 30 years at the time of his retirement early in 1955. During that time he had represented the Bureau on the Joint Committee on Unification of Building Codes, the Uniform Plumbing Code Committee, and the Coordinating Committee for a National Plumbing Code. The National Bureau of Standards is sponsor for the project on minimum design loads, and research done at the Bureau has been important in development of the standard.

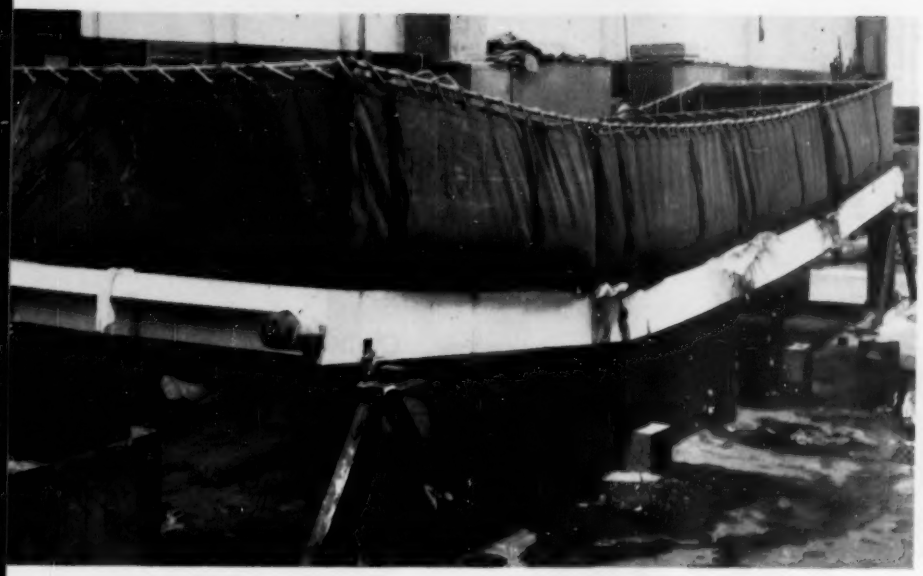


TYPE OF LOAD *that may now be expected in warehouses. Modern methods make it possible to handle warehouse contents in more highly concentrated loads.*

Factory Mutual Record

Among the American Standards in this field, Building Code Requirements for Minimum Design Loads in Buildings and Other Structures, now revised as A58.1-1955, has played a prominent part. First issued in 1945, it introduced a new method of providing for reductions in assumed floor loads that was generally conceded to be more scientific than any previously proposed. Although it had been generally realized that floor loads seldom if ever reached a total represented by the product of the load per square foot multiplied by the floor area, and allowance had been made for this, the reduction permitted in codes was arbitrary. This American Standard attempted to apply a logical process of reasoning that would provide adequate safety and yet permit desirable economy in the use of structural materials. Similarly, the standard based its recommendations for wind loads on application of scientific principles to U.S. Weather Bureau data rather than on acceptance of conventional values whose origin was obscure. Each step in arriving at the recommended new values was explained in an Appendix so that the user could satisfy himself that the requirements were reasonable. In particular, provision was made for suction effects which were well established by observation and laboratory experiment but were only occasionally recognized in existing codes.

With the passage of time and the accumulation of more data, it became possible to effect refinements



ROOF SLAB PANEL *is shown here under load test at the National Bureau of Standards. The slab is loaded to 80 lb per sq ft, equivalent to about 2½ times the probable snow load for Boston, Mass.*

in the requirements of the first edition of the standard. The sectional committee began work on a revision late in 1950 and made good progress until the untimely death of John H. Courtney, its secretary, who had long occupied a prominent place in building code activities. Before his passing, the main points of the standard requiring critical review had been identified and a draft of proposed new requirements had been prepared. This work had demonstrated that the subject most in need of review was that of wind loads. The first edition had made a substantial contribution in this field by emphasizing the need for consideration of suction effects and by indicating probable wind pressures in different parts of the country, based on past experience. Attention was now directed to completion of a revised map of possible wind pressures in the light of later information. Dr G. N. Brekke of the National Bureau of Standards, in cooperation with Mr Louis P. Harrison of the U.S. Weather Bureau, was responsible for the development of this map.

Past experience with wind storms was only one matter that had to be investigated. Questions arose as to the effect of gusts, the increase of wind velocity with height above ground, and the effect of shape of special types of structures on the pressures produced on them. These and other matters proved to be so complex that it was thought advisable to establish a subcommittee, headed by Professor (Emeritus) Clyde T. Morris of Ohio State University, to study the whole problem and to make recommendations. Not only buildings, but signs, radio, and television towers, and other structures received consideration. The recommendations of the subcommittee were accepted by the main committee and represent probably the most comprehensive treatment available for use in building codes today. The subcommittee, however, was not satisfied that all had been done that should be undertaken in this field and prepared a program of research which, it is hoped, can be carried out before the next edition of the standard is completed.

The importance of wind damage has thus been recognized to an extent greater than ever before in connection with building code requirements. When taken in combination with supplementary effects, such as wave action, floods, and loss of service by public utilities, wind damage has become one of the major problems of our time.

In requirements for design to resist earthquakes, the revised standard is in close agreement with recommended requirements of the Uniform Building Code sponsored by the Pacific Coast Building Officials Conference. Reference is made, in the standard, to the U.S. Coast and Geodetic Survey for information on local conditions that may justify the use of specific values. As in the case of wind pressures, it is hoped that continued accumulation of data and further research will provide the means for improved requirements as successive editions are issued.

Although few changes have been made in those sections of the revised standard in which weights of building materials and loads caused by occupancy are presented in terms of weight per square foot, these sections have been carefully reviewed and are believed to provide a sound basis for design.

The studies of the committee have emphasized that the development of basic standards for use in preparation of building code requirements is a continuing process in which facts, ideas, and group judgment change as time goes on.

With the publication of this revised edition of the American Standard Building Code Requirements for Minimum Design Loads in Buildings and Other Structures, a definite step forward has been taken in providing useful information for code writers. Further research, and group discussion made possible through ASA procedure, should give assurance of further progress.

Committee on NUCLEAR

Patterson Heads Nuclear Planning Committee

MOREHEAD PATTERSON, chairman of the Planning Committee on Standardization in the Field of Nuclear Energy, has been chairman and president of the American Machine and Foundry Company since 1947. He was called on to help solve problems concerned with atomic energy before his present assignment when President Eisenhower appointed him U. S. representative for International Atomic Energy Agency Negotiations in 1954. In this capacity he holds the rank of ambassador. Earlier that year he had served by presidential appointment as U. S. representative at the London meeting of the Subcommittee of Five on Disarmament.

Mr Patterson is a native of North Carolina. He was graduated from Yale in 1920 with a B.A. degree, and studied economics for a year at Christ Church University College, Oxford University. He received his L.L.B. from Harvard Law School in 1924.

He is a director of a number of companies, and a trustee and member of the Executive Committee of the U. S. Council, International Chamber of Commerce, as well as vice-president of the Machinery and Allied Products Institute.

In March 1954, Secretary of State Dulles named him chairman of the United States Committee for the United Nations, and a member of an eight-man committee to recommend ways of strengthening the diplomatic service.

Mr Patterson is a member of the American Society of the French Legion of Honor, the American Society of Mechanical Engineers, and the Army Ordnance Association. He is a member of the Economics Club of New York, and was a member of the Committee of Sponsors of the First International Conference of Manufacturers, National Association of Manufacturers, 1951.

In accepting the chairmanship of the Planning Committee, Mr Patterson said that his acceptance was with the concurrence of Rear Admiral Lewis L. Strauss, chairman of the Atomic Energy Commission. He declared, "The need for standards in this field is clearly indicated. They must be flexible and subject to frequent revision in order to help rather than hinder the fast-developing atomic industries. They cannot grow overnight and we must provide a place for them to grow in an orderly fashion."

SUBCOMMITTEES have been set up to start work on planning and recommending what standards may be needed when nuclear energy is put to use by industry. This action was taken at its first meeting February 15 by ASA's Planning Committee in the Field of Nuclear Energy. The committee was organized by the American Standards Association to study what effect industry's use of nuclear energy may have on materials and processes, and on existing standards. The Planning Committee is to report back to a General Conference of industry and government representatives, which asked that the study be undertaken by the committee "actively and urgently."

Morehead Patterson, chairman of the board and president of the American Machine and Foundry Company, New York, has been named chairman of the Planning Committee. John R. Townsend, Sandia Corporation, and former chairman of ASA's Standards Council, is vice-chairman.

Mr Patterson presided at the February 15 meeting. Twenty-four associations, technical societies, and government organizations were represented.

A meeting of a steering committee, made up of the chairman and vice-chairman, and chairman of the planning sub-committees, is scheduled for March 15.

The delegates studied an outline of suggested areas of standardization applicable to the atomic energy industry prepared by the Atomic Industrial Forum. They also had for study a list of American Standards which may relate to the nuclear energy field. These included such standards as the Building Exits

ENERGY Under Way

Code; identification of piping systems; building code requirements for light and ventilation; life tests of tools; Code for Pressure Piping; and standards on insulator tests; circuit breakers, electrical insulation materials; photographic materials and processing; and fundamentals relating to the design and operation of exhaust systems, as well as many others.

Subcommittees were set up to work on recommendations concerning the possible development of general or administrative standards in connection with the industrial use of nuclear energy; standards for radiation protection; for nuclear safety; for materials; for equipment; and for processes.

Definitions and terminology, color codes, symbols for drafting as well as for identifying hazards and plant layout, records, and qualifications of professionals were suggested as subjects for consideration by the subcommittee on general or administrative standards. Vice Admiral W. A. Kitts, USN (Ret), General Electric Company, representing the Atomic Industrial Forum, is chairman.

The work on radiation protection may be expected to include consideration of standards not only for possible use in protecting people against various types of occupational and public health hazards, but also for fire protection and protection of property. This latter includes possible re-use of contaminated materials by industry, and also, specifically, the effect of industrial use of nuclear energy in connection with the manufacture, packaging, and storage of photographic film. H. M. Parker, General Electric, Hanford, Washington, is chairman of the subcommittee to plan standards for radiation protection.

The subcommittee on nuclear safety will have under its scope the possible use of standards for safeguarding reactor operation, and methods of recognizing critical mass situations, including problems connected with chemical processing, transportation and storage, laboratory experimentation, and fuel fabrication. K. L. Osborne, Allied Chemical and Dye Corporation, is chairman.

J. R. Townsend, Sandia Corporation, heads the activities on standards for materials. Mr Townsend is a past president of the American Society for Testing Materials and is closely in touch with the work of ASTM committees which are studying the effects of nuclear energy. The planning may include fundamental properties of materials and their physical properties during irradiation, as well as the possible need for standards in raw material production.

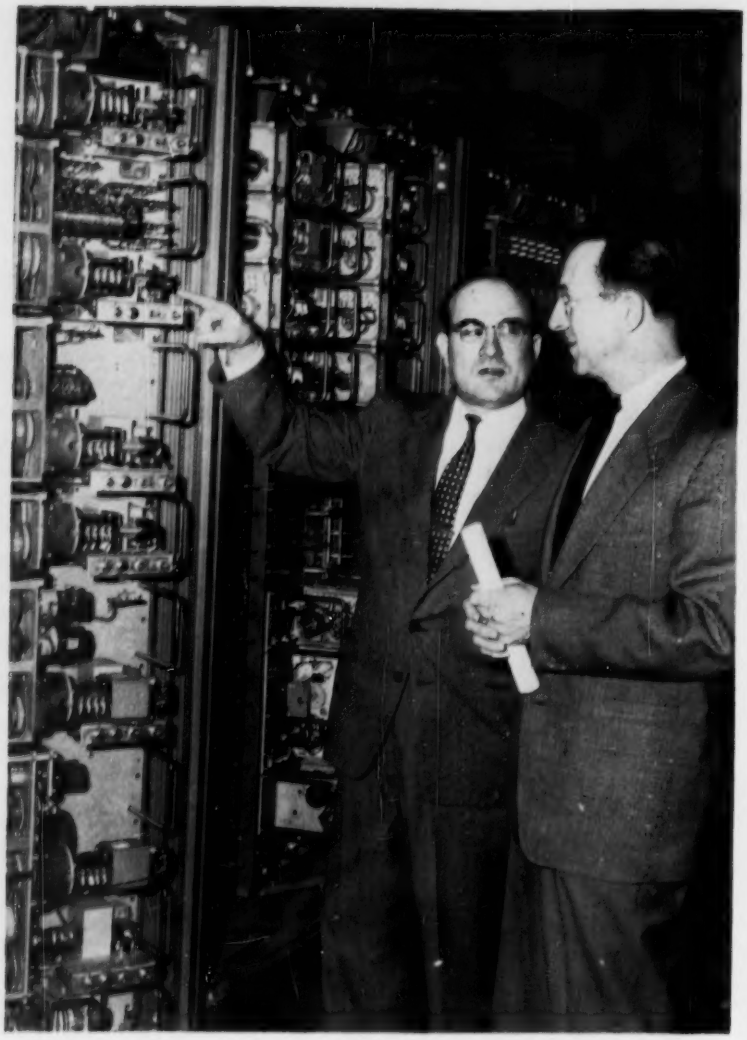
Two subcommittees are taking up the work on possible standards for equipment. One, under the chairmanship of Dr G. A. Morton, RCA Laboratories, Princeton, N. J., will consider the problem as it relates to electrical engineering. Dr Morton represents the Institute of Radio Engineers on the committee. Plans call for Dr Morton's subcommittee to consider instrumentation, circuit components, safeguarding of electrical hazards, and accelerators.

H. A. Wagner, Detroit Edison Company, representing the American Society of Mechanical Engineers, heads the second subcommittee on equipment. His group will take up problems connected with mechanical engineering and civil engineering. Included will be pressure vessel re-inspection, piping, and reactor cores; fuel element assemblies; containment vessels; and fabrication and processing in the field of mechanical engineering. Construction, biological shielding, building, foundations, plumbing, waste disposal systems, and piping will be included under civil engineering.

Chemical engineering and specific applications as required are to be included in the work of the subcommittee on standards for processes. R. P. Genereaux, E. I. du Pont de Nemours, representing the American Institute of Chemical Engineers, is chairman.

Organizations represented at the Planning Committee's meeting were:

American Industrial Hygiene Association
American Institute of Chemical Engineers
American Institute of Electrical Engineers
American Public Health Association
American Society of Mechanical Engineers
American Society of Safety Engineers
American Society for Testing Materials
Association of Casualty and Surety Companies
Atomic Industrial Forum
Bureau of Explosives
Edison Electric Institute
Institute of Radio Engineers
International Association of Governmental Labor Officials
Manufacturing Chemists Association
National Association of Mutual Casualty Companies
National Electrical Manufacturers Association
National Safety Council
Radio-Electronics-Television Manufacturers Association
Society of Automotive Engineers
U. S. Atomic Energy Commission
Office of the Assistant Secretary of Defense
U. S. Department of Commerce, National Bureau of Standards
U. S. Department of Labor
U. S. Public Health Service



APPLICATION OF PRECISION AND CLEARANCE FITS *and Precision Ball Bearing Fits to serve mechanisms in Link flight simulators is illustrated to M. S. Wade, Standards and Standardization Manager, by D. E. Ulmer, formerly a Standards Engineer and now Supervisor of Methods and Tooling.*

GPE STANDARDS COMMITTEE *and guests following a committee meeting at Link Aviation. Seated (left to right) — M. S. Wade, Link Aviation, Inc; D. Harrison (guest), Librascope, Inc; Rear Admiral S. E. Burroughs, Jr, chairman, General Precision Equipment Corp; O. Kolb, General Precision Laboratory, Inc; A. W. Shaterian, International Projection Corp. Standing (left to right)—R. L. Whitcomb, Librascope, Inc; S. Alvine, Kearfott Co, Inc; L. G. Harrison (guest), Link Aviation, Inc.*

ELECTRICAL SUBCOMMITTEE OF LINK AVIATION, INC, *discusses proposed standard Color Coding for Chassis Wiring before submitting code to GPE Standards Committee. W. Diener, Standards Engineer, is explaining a condition of tracers in wire to the subcommittee of key men from Project Engineering and Manufacturing. Left to right (around table)—M. Crabb; K. C. Hill; W. Morgan; A. Swan; F. Antelek; W. Diener; A. Friedlander; L. Stewart; V. Jones.*

Link Aviation's New Standards Program

by L. G. HARRISON

Mr Harrison is Supervisor of the Standards Publications Department, Link Aviation, Inc, Binghamton, N. Y. This paper was presented at the Fourth Annual National Meeting of the Standards Engineers Society, Hartford, Conn, September 29, 30, October 1, 1955.

IT is a practice of companies affiliated with General Precision Equipment Corporation to sub-contract work to another company affiliate where possible. In some cases difficulties have been experienced and time and money lost through misunderstanding and misinterpretation of drawings and specifications. This represents recurrent problems; the orderly solution is Standards.

A Standards Program for the General Precision Equipment Corporation (GPE) was initiated in the early part of 1955. This Standards Program took the form of a GPE Standards Committee, made up of a representative from each of the following companies: General Precision Laboratory, Inc; Librascope, Inc; International Projector Corporation; Kearfott Company, Inc; Link Aviation, Inc.

Rear Admiral S. E. Burroughs, Jr, USN (Ret), Assistant to the President, GPE, was appointed chairman of the committee.

With the committee formally organized, the first meeting was held in May 1955. This first meeting was basically an introduction to the "recurrent problems" and established operating procedure for future meetings.

The committee meetings are generally informal, but are subject to certain rules by which the chairman or discussion leader can control a meeting. These meetings are to be held every second month, with each company serving as the host on a rotation basis. This gives the committee representatives an opportunity to see how the other company affiliates operate. This will be advantageous from a standards viewpoint. The representatives can learn the other companies' operation and thereby understand their standards program.

The first areas of standardization selected were those which concern drawings and specifications (representing the recurrent problem). These are: Design standards; drafting standards; and shop standards.

Having established the purpose and scope of the Standards Program, the operationing procedure fell next in line. How were the standards to be prepared, approved, and distributed?

At the first meeting, a recom-

mendation for a standard binder, format, indexing system, and outline procedure for preparing the standard was presented and accepted. This recommendation established the foundation of the Standards Program. We now have to build on that foundation. The building blocks are to be the standards that will be prepared and distributed.

The operating procedure best suited to the program is the committee approval method. The procedure for preparing, approving, and distributing the standards is as follows:

1. Each company representative is assigned a subject to be compiled and prepared as a standard. Where the subject has a large scope, such as gears and gearing, the chairman may assign more than one company representative to the subject. The company represented is responsible for the complete preparation of the standard through its representative. In case more than one representative is assigned to a subject, a subcommittee is formed. This subcommittee is composed of personnel from those companies that have been assigned the subject through their representatives on the Standards Committee.

2. When write-up of the subject is completed it is submitted to the appropriate committee within the originating company for review as a standard.

3. After approval by the company committee, the proposed standard is prepared on the approved form and submitted to the respective companies of the program through their committee representative. The proposed standard carries a return date to allow proper scheduling. The standard is returned to the originating company with comments.

4. The originating company reviews all comments and prepares a final draft of the proposed standard. The standard is then re-submitted to the companies for approval.

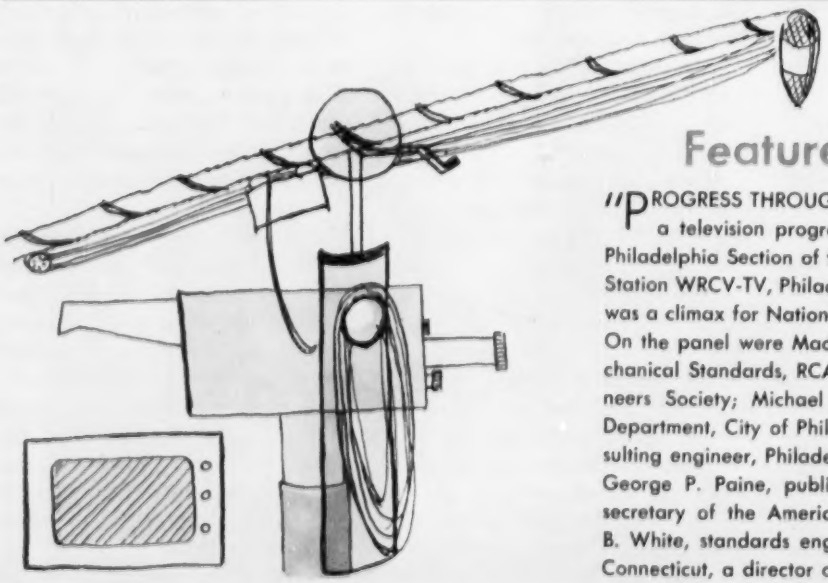
5. With approval obtained, the standard is carried to the regular GPE Standards Committee meeting for final approval.

6. When approval of the GPE Standards Committee is granted, the originating company prepares the standard on the approved format for printing and distribution. Distribution to represented companies is through the Standards Committee representative. One copy, printed on a good grade-of vellum, is supplied to each Standards Committee representative. Distribution within the companies is based on the Standards Program within the companies.

7. The effective date for the new standard is determined by the represented company itself.

A Standards Program must be flexible to allow for new developments and new processes. To allow for new processes and to keep the standards in line with development, a simple revision system has been proposed. When revisions are necessary, written request is submitted to the GPE Standards Committee through the company representative. The request is reviewed at a regular meeting. If the request appears sound, then it will be turned over to the company requesting the standard. The standard is revised where necessary and submitted to the represented companies for approval. With approval of the companies obtained, the revised standards are to be presented to the GPE Standards Committee for final approval. Distribution is identical to that of a new standard. When a request does not appear sound, an answering letter to the writer of the request outlines reasons why no action will be taken at that time to revise the standard. Since this Standards Program is young, no use has been made of this proposed revision system.

Any Standards Program of this type has to be a long-range program and the results noted only after application of the standards prepared. GPE believes that this program will definitely help solve its "recurrent problems."



Television Program Features Standards

"PROGRESS THROUGH STANDARDS" was the subject of a television program presented by the Metropolitan Philadelphia Section of the Standards Engineers Society on Station WRCV-TV, Philadelphia, February 26. The program was a climax for National Engineers Week in Philadelphia. On the panel were Madhu S. Gokhale, administrator, Mechanical Standards, RCA, president of the Standards Engineers Society; Michael Sura, commissioner, Procurement Department, City of Philadelphia; Walter C. Wagner, consulting engineer, Philadelphia Chamber of Commerce; and George P. Paine, public relations director and assistant secretary of the American Standards Association. Arnold B. White, standards engineer, Veeder-Root, Inc, Hartford, Connecticut, a director of the Society, was moderator.

THROUGH/ HISOTRY WEITH StANDARDs

7. Second Series

ONE of the commonest everyday standards of the western world is also one of the very worst. It is the standard keyboard of the typewriter, which everyone agrees is about as inefficient as it can be.

This standard was devised 83-odd years ago by Christopher Latham Sholes of Milwaukee. Sholes was only one of many who devised a machine that could type, but his was the first practical invention, the first to be marketed, and the first to bear the name "type-writer." Sholes' machine, patented in June, 1868 (No. 79,265), was mounted on a sewing machine stand and printed only capitals, but it had many of the features used today, including the keyboard arrangement of letters, numbers, and punctuation now known as "universal."

Sholes arranged the letters on the keyboard of his first model in simple alphabetical order. An experienced printer, he later rearranged them to follow a printer's type case, which had been designed for the convenience of two men working from the same case. Finally he made further changes in the letter positions to keep the 44 type bars from colliding and jamming. He made no study of finger movements or of the frequency of occurrence of letters or letter combinations.

The modern typewriter is a beautifully efficient and streamlined machine, with many basic improvements added to it. The writing, for example, has been made visible; machines have been made portable; they have been powered with electricity. But the keyboard has remained virtually the same and has, in fact, become standard for the western world. (The British keyboard is the same as ours; the Germans transpose the Z and Y.)

According to an article by Peter T. White in the *New York Times Magazine* for January 22, 1956, experts say that the following things are wrong with this keyboard. The left hand does 56 percent of the work. The weaker fingers are overloaded. Only 32 percent of the characters are typed on the "home row," where you rest your fingers, with the result that there is more flitting up and down from row to row than is necessary. Some 3,300 fairly common words are typed solely by the left hand, and about 500 by the right hand. (Examples: federated, average, exaggerate, better, minimum, only, lollipop.)

A number of scientifically designed keyboards have been proposed as a new standard. One of these is by Professor August Dvorak of Washington State University, who has studied the subject with the aid of two grants from the Carnegie Foundation. His keyboard, patented in 1934, looks like the illustration below.

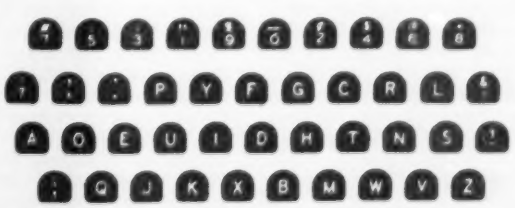
According to Mr White, U.S. Navy tests made during World War II revealed that 14 typists, after 80 hours of retraining each, average 74 percent more work with 68 percent improvement in accuracy. The General Services Administration now has twelve typists at work in experiments on the Dvorak keyboard and eventually will race them against twelve other typists using the standard keyboard. There are 6,000,000 typewriters in the USA and GSA holds title to about 800,000 of them.)

Changing the present-day standard keyboard, however inefficient, would of course be a major undertaking — and perhaps an impossible one. In addition to the inertia of those who prefer to let well enough alone, there would be the active resistance of those who do not want to unlearn the old and learn the new. Textbooks would have to be rewritten and teachers retrained. If the new keyboard were introduced gradually, the nation would struggle along for many years with two keyboards and investment in duplicate machines would soar.

The moral of the story is clear. Some standards should be planned in advance and they should be scrutinized regularly to see if they need revision. Important standards that are allowed just to "happen" and then to solidify can be corrected only with tremendous effort and expense.

One might wonder how many of today's young industries—commercial air transport, electronics, atomic energy, instrument controls, among others—are at this moment thoughtlessly laying down standards that time will prove as inefficient and as difficult to correct as the standard typewriter keyboard.

As every standards engineer knows, standards are a useful servant and a bad master.



Are These Cases Work Injuries?

Rulings of the Committee on Interpretations are now being issued on whether unusual cases are to be counted as "work injuries" under the new edition of American Standard Z16.1-1954. Title of the standard is Method of Recording and Measuring Work Injury Experience. Sponsors of Committee Z16 are the National Safety Council and the Accident Prevention Department of the Association of Casualty and Surety Companies.

Case numbers in this new series start with 400. The cases below represent the third installment in the series under the revised edition of the standard. The numbers in parentheses refer to those paragraphs in the standard to which the cases most closely apply.

An index is being prepared by the National Safety Council, arranged both numerically by case number and numerically by paragraph number of the standard. Each index reference will include a brief description of the case.

When the first 50 cases have been published, copies of the cases and the index will be made available at 50 cents per copy. Liberal discounts will be offered for quantity orders. Copies will be 8½ x 11 in. with margins for punching. Up-to-date indexes will be issued with each additional 50 cases.

CASE 421. (5.2)

A maintenance millwright was not performing any duties, but was going to another part of the plant. He stooped to go under a conveyor and got a catch in his back when he went to straighten up. He lost four days from work.

Decision: The committee decided that this injury should not be included in the work injury rates on the basis that it did not meet all of the conditions of paragraph 5.2 of the standard.

CASE 422. (1.5c)

Borderline case. The committee agreed this should not be used as a precedent for future rulings.

CASE 423. (5.1)

A pipefitter mechanic and his helper were working together, removing a pipe nipple from process equipment. The pipefitter was standing on the top of the equipment with a 24-in. wrench attached to the pipe nipple. His helper was assisting him, standing on a platform below the work. The pipefitter pulled on the wrench with both hands but the nipple did not give and he remarked on a burning sensation in his right groin. The men continued working, however, and the pipefitter's helper started to leave to go to the roof of the building above the work area. At this time, the pipefitter placed a 2-ft extension handle on the 24-in. wrench and leaned against this extension handle so that it was across the lower part of his chest. He extended both of his arms to grip a nearby pipe and pulled toward himself, using his body to push against the extension handle. The wrench slipped off the nipple and his body jerked suddenly. He again felt a pain in his right groin. His helper heard the wrench drop and returned to the work area to see what had happened. After some discussion, the pipefitter and his helper decided to return to the shop for another 24-in. wrench so that both men could work to free the nipple. While at the shop, the pipefitter commented to several other employees about the difficulty of the job. His foreman overheard the discussion and questioned the pipefitter as to what had happened. After learning of the incident, the foreman advised the pipefitter to go to the plant first aid department and be checked.

However, before going to first aid the pipefitter and his helper returned to the job and resumed their work. The pipefitter's foreman then came to the job site, supervised the completion of the work, and again advised the pipefitter to report to first aid for a check up. The pipefitter agreed to do this but went first to the cafeteria for about ten minutes for his "coffee break." Following the coffee break, he reported to the first aid department, about 40 minutes after the first alleged incident had occurred. Since this type of examination is performed by the plant doctor who was not on duty at the time, the nurse sent the employee to a nearby hospital. He was checked by the hospital doctor and a right inguinal hernia was found. The pipefitter returned to the plant to get his car and, refusing assistance, left the plant and went home. He was admitted to the hospital eight days after the alleged injury and had the hernia repaired.

Evidence of a prior hernial weakness had been shown in the company medical records on the employee. The employee had a left scrotal hernia which had occurred and was repaired during his childhood. The employee claimed that he had not experienced pain in the area of the hernia prior to the incident.

Although immediate pain was evidenced at the time of the alleged injury, it was not so acute that the employee was required to stop work. His mention of the pain to both his fellow employee and his foreman was casual, and his visit to the plant first aid department was made more for a check up rather than to report an injury. The assistance of a physician was required only for examination in the absence of the company doctor and no immediate treatment for relief of pain or other complications was necessary at the time of the injury.

Decision: This injury should be included in the work injury rates as a temporary total disability. The committee felt that the case did meet all of the requirements of paragraph 5.1 of the standard.

CASE 424. (5.2)

A maintenance laborer was performing a regular function of his job, which consisted of lowering a 2½-gallon bucket with a rope attached to the handle into a pit containing enamel slip. When the bucket was full, the employee, using the rope, raised the bucket and emptied it into a nearby container. Due to the nature of the enamel slip, the area surrounding the pit had always been very slippery. It had been a long-standing practice for the men to wear rubber boots. In this particular instance, the combination of the slippery area and the rubber boots made for poor footing and some sliding was natural in the performance of the job. While emptying the contents of the bucket into the container, the employee slipped slightly and at that time noticed a rather sharp pain in his back. He was sent to the doctor who diagnosed the condition as a muscular spasm and further advised that the employee was a person with an unstable back who could suffer a spasm from almost any back motion. The employee lost 11 days.

Decision: This injury should be included in the work injury rates as a temporary total disability. The committee felt that the case as submitted met all of the requirements of paragraph 5.2 of the standard.

CASE 425. (5.1)

A company raised a question with regard to the proper classification and time charges for hernias. For instance, a worker suffered a hernia one month, but it was not going to be repaired until the next month, or maybe even later. The company wanted to enter this injury in the records, and according to the standard, had to put it in as a permanent

partial disability since the injury had *not* been repaired. The next month, or the month after, when it has been repaired, the company asked, should they go back and revise the earlier record to change the permanent partial to a temporary total disability, and change the 50-day time charge to the actual number of days lost?

Decision: The committee decided that such hernia cases should be entered in the records as permanent partial disability cases with a time charge of 50 days, with the understanding that whenever the employee is operated upon, the records should be corrected to change it to a temporary total disability, with time charges in accordance with the actual days lost.

Case 426.

An employee alleged that he was injured while changing a blade on a small bag press in the Finishing Department. He stated that he was loosening a nut with an 8-in. wrench and was struck in the navel when the wrench slipped off the nut. He reported the injury to the first aid hospital two days later, and was sent to the company physician. The diagnosis was "bruised abdominal wall and infection of umbilicus." He was hospitalized and lost 28 days from work. Complete investigation of the accident, which included a demonstration by the injured of the manner in which he was allegedly hurt, revealed that it was extremely unlikely that he could have been injured in the manner claimed. He was pulling up on the wrench and had it slipped off it would undoubtedly have struck a position higher on his body. Also the thickness of his clothing would presumably have prevented the smooth end of the wrench from causing the distinct scratches to which the doctor attributed the infection.

The injured man made the following statement: "I thought nothing about it at the time it happened but after it began giving me trouble the next day, I decided I had better do some thinking about it because I knew I would have to have some reason. The only thing I could think of was I must have struck myself with a wrench while loosening the nut on the press."

The clear-cut scratches, which apparently could only be made by direct contact with the skin by the wrench, plus the injured man's statement to the effect, that in retrospect, he decided he had to have a "reason," plus the late reporting of the case and the possibility that the scratches could have been received away from the job led to the belief that this was a doubtful case.

Decision: This case hinged completely upon whether to accept the employee's statement that he was struck by a wrench while loosening a nut in his employment, or whether to reject the employee's statement. If this employee was struck by a wrench which caused the "bruised abdominal wall and infection of umbilicus," as stated, then the members of the Committee on Interpretations believed that this should be included as an injury arising out of and in the course of employment, and should be included in the frequency and severity rates. If, on the other hand, this employee did not receive an injury arising out of and in the course of employment, then his subsequent lost time should not be included in the injury rates.

The Committee on Interpretations believed that it was not in a position to establish questions of fact such as this, and, therefore, not in a position to make a definite decision. It was suggested that a decision be made by the company in accordance with all of the facts available.

Case 427. (1.5*b*)

The company had recently engaged an independent elevator contractor to remodel the elevator system in its 11-floor office building. The job required that work be done on the elevator doors at each floor level. This work was in progress on the sixth level at the time the accident in question occurred.

The injured, whose office was located on the sixth floor, stopped on his way by to observe the work. While he was watching, one of the workers inside the elevator cab was trying to hand a wrench up to another worker on the roof of the cab. He was too short to reach, so the injured asked if he could help. The injured received an affirmative answer and was handed the wrench. He stepped into the cab with one foot, (keeping the other foot on the hall floor) and reached up to hand the wrench to the worker above. Just then the elevator started upward. The injured jumped sideways into the hall and landed on his right foot. The elevator went up a distance of about 12 inches and the injured jumped about this distance in order to leave the moving cab.

As he landed he felt a sharp pain in his lower back. He returned to his desk and continued working for about two hours, then went home because of a severe headache. His back pains increased in severity until he consulted a doctor a few days later. As a result of the injury, the injured lost six days time.

The men working at the elevator job were employees of the elevator contractor. The injured was employed in the company's General Engineering Department, and his work was not related to, or connected with the elevator job.

Should this injury be classified as a work injury and included in the accident frequency and severity rates?

Decision: This case should be included in the work injury rates. The committee believed that this employee was voluntarily trying to help his employer speed up the work of the contractor at the time of this injury.

Case 428. (5.13)

An employee suffered a severe contusion. Because of the possibility of fracture, he was sent to a doctor outside of the plant for an x-ray. Until the results of the x-ray were received, the employee was kept home, losing time on one or more days subsequent to the injury. The employee was returned to his regular job when the x-ray revealed the lack of fracture.

Delays of one or two days had been experienced in receiving x-ray results. This delay had been beyond the control of the management, and had been responsible for the time lost. In most cases, the employee would have been returned to work the day of the injury, if x-ray results were available more quickly.

Does a case of this type fall under the classification determined by paragraph 5.13 of Z16.1, where the x-ray wait would be considered an observation period?

Decision: This case should be included in the work injury rates on the basis that in the first place this employee was not hospitalized, and in the second place there was no delayed effect from the injury, but simply delayed diagnosis which was not the purpose of paragraph 5.13 of the standard.

Case 429. (5.4)

An employee was struck above the ankle, receiving a contusion and a hematoma. Because this employee suffered from hemophilia, the doctor advised keeping the man at home for several days under observation, until he felt it was safe to return to his regular job.

The injury itself was not of a serious nature. If not for the presence of the pre-existing physical deficiency, the injury would have been a simple first-aid case.

Here was a case which was not caused by the pre-existing physical condition, nor did it result in an aggravation of the pre-existing physical condition. However, because of the nature of the condition, an extended observation period was required.

Decision: This case should be included in the work injury rates on the basis that it is specifically covered by paragraph 5.4 of the standard which includes many other cases besides hemophilia where a relatively minor accident might result in major injuries.

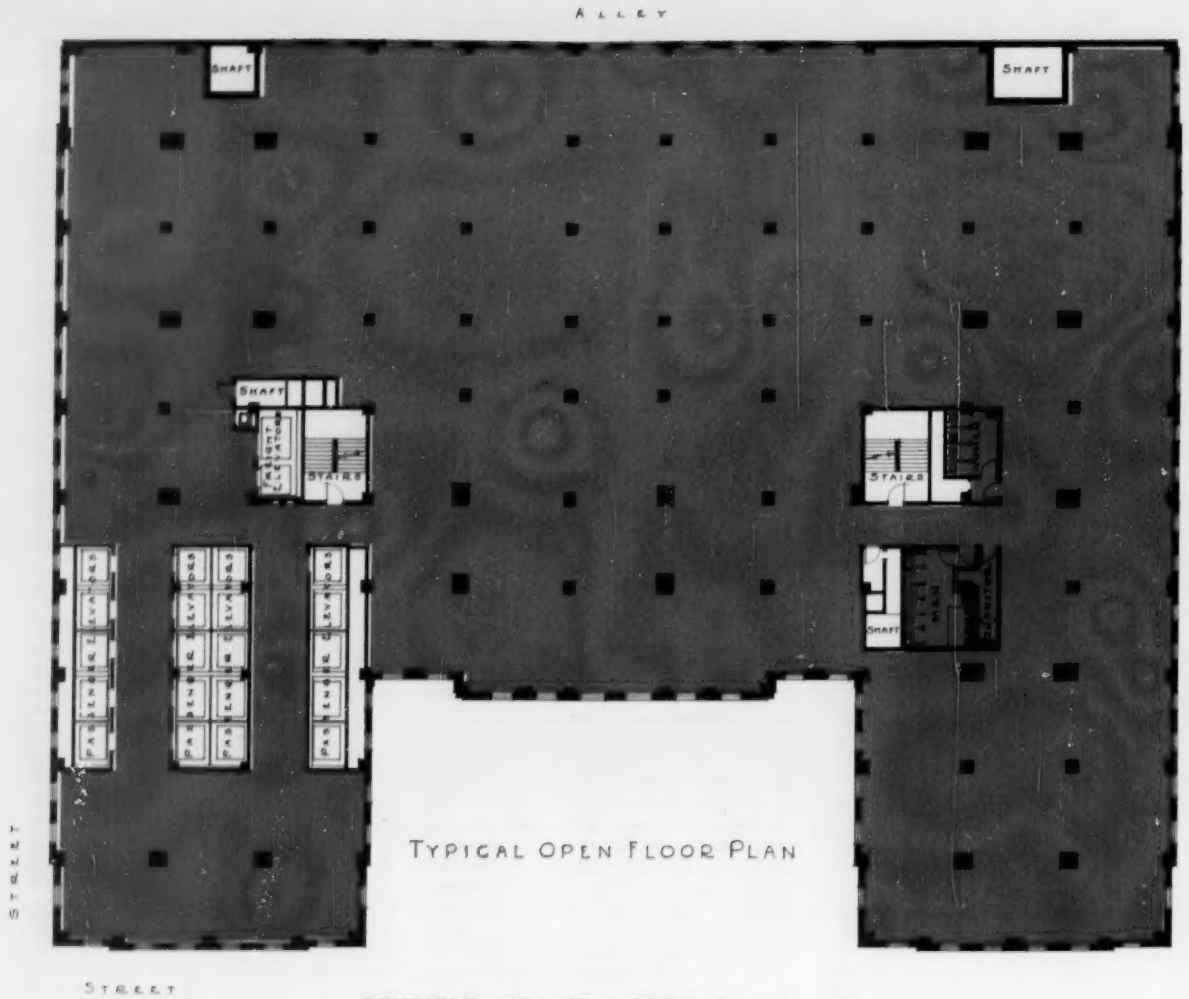
Case 430. (A1.6*f*)

An employee worked his eight-hour shift without incident. He proceeded up the steps to the time clock, punched out, left the building, and while on the way to his car, realized he had forgotten his lunch box.

He immediately turned back, entered the building, and when he was approximately on the third step from the bottom, he caught his heel on the step and fell, breaking a bone in his foot.

The employee's car was parked on company property, and this employee had not left the company property when he decided to return for his lunch box.

Decision: This injury should be included in the work injury rates. The committee believed that since this employee was still on company property when he decided to return for his lunch box he had not as yet taken himself out of his employment.



RENTABLE AREA OF A FLOOR *having a single tenant includes all the area within the outside walls, less stairs, elevator shafts, flues, stacks, pipe shafts, and vertical ducts with their enclosing walls.*

how to measure RENTABLE

THE adoption of an American Standard to determine office building areas is an accomplishment of far-reaching importance.

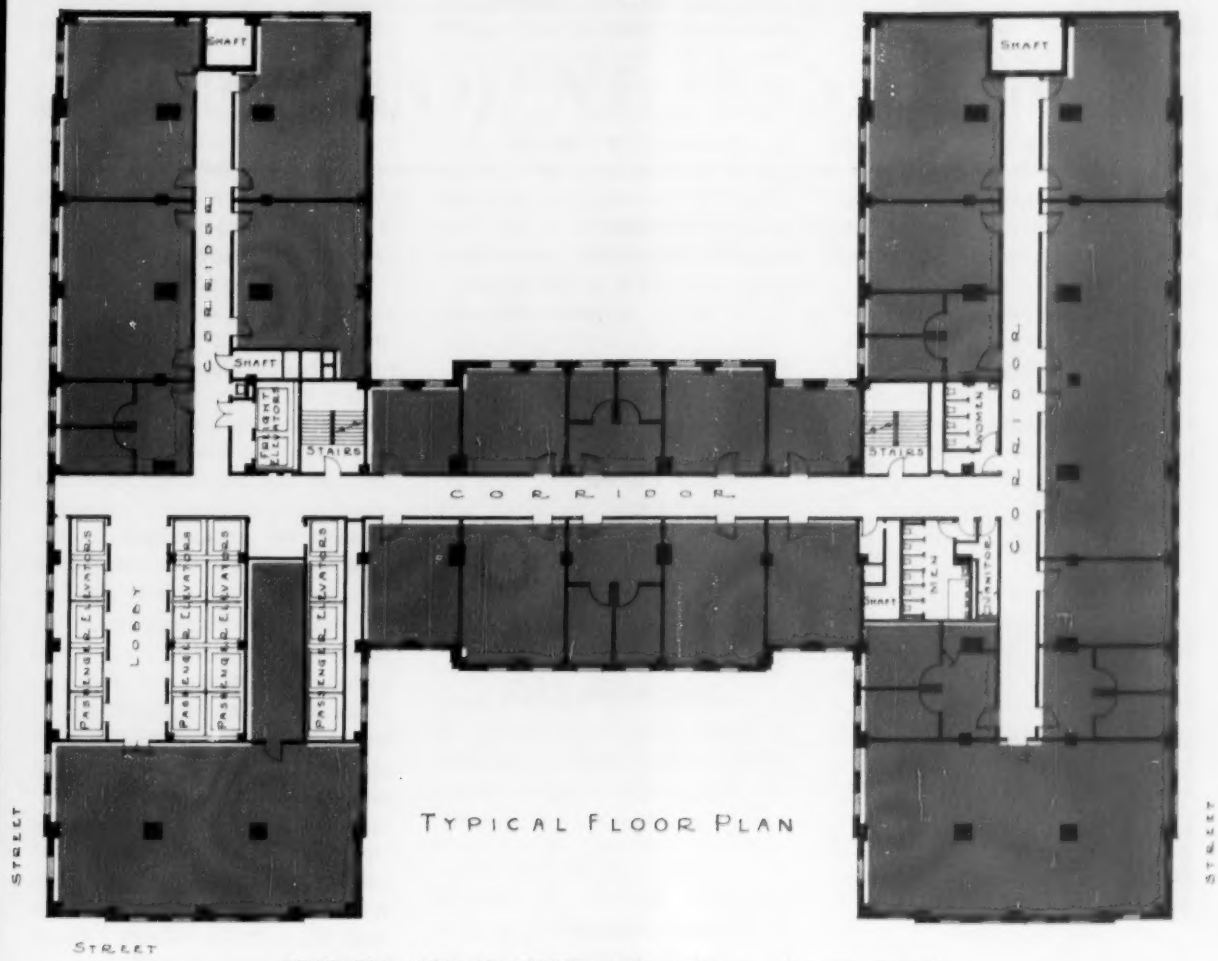
Since the accepted unit of space measurement is the square foot, it might seem to the casual observer that the only standard needed is an ordinary foot rule. But it is not that simple. In measuring rental areas it is a question of what to measure from and what to measure to, what to take in and what to leave out. There are even surprisingly difficult problems of terminology.

In this country there are upwards of 440,000,000 square feet of rentable area in recognized office buildings, and new space is being created at the rate of several millions more each year. However, there is an indeterminate, but probably larger footage in non-typical buildings, such as two- and three-story walkups in outlying sections of cities and in smaller towns.

All of this office space is subject to measurement. The architect, the appraiser, the builder, the lender, the owner, the renter are all vitally interested, not to mention the assessor—and many billions of dollars are at stake.

Some 40 years ago — back in 1915 — the National Association of Building Owners and Managers adopted a standard method of floor measurement which has served the industry well, over the years. It was readily accepted as a "National" standard and was widely, though not universally, adopted.

This standard met the needs of the characteristic office building of that day and of the prolific '20's, a



RENTABLE AREA OF OFFICE *on floor with more than one tenant is computed by measuring to inside finish of permanent outer building walls, to office side of corridors, and to center of partitions separating adjoining rentable areas.*

OFFICE SPACE

by HENRY LEAR

Mr Lear is manager of the Fidelity-Philadelphia Trust Building and chairman of ASA Sectional Committee Z65 on Building Areas.

building designed for multiple tenancy with corridors reaching to every reasonable subdivision of a typical floor.

Space was measured from the office side of outside walls to the office side of corridor walls, and to the center of partitions separating one office from another.

The reason for this latter provision was the basic principle that the rentable area of a given floor was a definite and permanent figure — the same from one year to another, regardless of tenant changes. Even when a tenant took an entire wing, including corridor space in the rented premises, the rentable area was unchanged.

Some building owners found it difficult to disassociate space measurement from rentals charged. But the soundness of this principle, for accurate accounting, good management, and economic analysis, was amply demonstrated over the years.

However, this National standard — while invaluable in the absence of something better — only partly solved the problem. Outside the office building industry there were deviations. The architects had a slightly different approach, with which many lending institutions, working from architect's plans, were disposed to go along. Various government departments adopted their own rules in contracting for space; and there were certain marginal areas, in and out of the industry itself, where convenience or inclination prevailed.

Another, and in time a more serious, difficulty was brought about by changes in office building design and construction. Of late years the block-

type building, made possible by the introduction of air conditioning, high-intensity lighting and concurrent improvements in other equipment, posed a very definite problem.

Floors designed for single tenancy dispensed with fixed corridors altogether. And since the then existing standard measured to the corridor wall, something had to be done to cope with its disappearance!

It was at this particular time that steps were taken looking to the adoption of an American Standard, a project taken on by the American Standards Association with the National Association of Building Owners and Managers and the Office of Education, U.S. Department of Health, Education, and Welfare as co-sponsors.

Following its accustomed proceduce, the ASA created a representative committee, designated as Z65, the members of which were proposed by 19 participating organizations. In the composition of this committee all appropriate interests were recognized.

The writer, who was nominated by the National Association of Building Owners and Managers, became chairman of Committee Z65, somewhat to his dismay.

The function of this committee was considerably broader than the announcement of this new standard might be taken to imply. Its assignment was to develop standards of measurement for "building areas" — not just office space. Accordingly, subcommittees were created — on office buildings, on loft or industrial buildings, on government buildings, on schools, and on hospitals.

At present, this assignment has been completed as to office buildings only. In regard to other areas, the committee's work continues.

The office building subcommittee had as its first chairman Stanley Bortner of Baltimore. His untimely death, just as the work had fairly started, necessitated a replacement, and James F. Cook, Jr, of St Louis, a former president of the National Association of Building Owners and Managers, accepted the chairmanship of the office building subcommittee.

Bringing about a meeting of minds on a problem where so many points of view must be considered is a time-consuming operation. Three years elapsed between the date of the appointment of Committee Z65 and of final approval of this first project by the American Standards Association. There is no need, at this time, to recount the intermediate steps. The result is all that counts.

The newly adopted American Standard presents two definitions, one for what is designated as "net rentable area," applicable to office buildings designed for multiple tenancy — which properties are still in substantial majority — and one designated as "full floor rentable area" applicable to the newer type of construction in which floors are designed for single occupancy.

The first of these definitions follows closely the standard in effect since 1915. The latter measures space from the office side of outside walls to the office side of the opposite walls, taking out elevator shafts, stair wells, and other features serving more than one floor. Toilets and other facilities, which service exclusively the single tenant on the floor, accordingly are included in "full floor rentable area."

A visual presentation of these two definitions is given in the accompanying illustrations.

The distinction in terminology is an essential feature, for there is an obvious difference to be kept in mind. For economic studies, covering all types of office space, conversion from one measurement to the other will be necessary and entirely feasible, based on factual comparisons on a broad enough base to arrive at dependable results.

It is the writer's opinion that this new American Standard will be welcomed on all sides, since it provides a tangible and mutually acceptable basis on which all interests can rely. We know it will work because it combines sound theory with prevailing practice at its best. This involved some compromise but, we believe, a good compromise. Certainly the committee could have arrived nowhere without some reasonable give and take.

I am grateful to those who served on Committee Z65 for their consideration at all times, their constantly helpful attitude, their patience, and most of all for earnestness of purpose in the end to be achieved. We are confident that this new American Standard will come into general use, not only on grounds of expediency, but for outright advantage, and that presumably is the ultimate test of any standard.

IMPORTANT MEETING DATES, 1956

International Electrotechnical Commission (IEC)

Annual meeting, June 27-July 6. Delegates will be guests of the German National Committee of IEC at Munich, Germany.

International Organization for Standardization

Meeting of the Council, July 16-21, Geneva, Switzerland.

Seventh National Conference on Standards

Sponsored by the American Standards Association in conjunction with its 38th Annual Meeting, October 22, 23, 24, Hotel Roosevelt, New York.

Spring Meeting Company Member Conference

Manger Hotel—Cleveland, Ohio
May 14 and 15, 1956

GOVERNMENT STANDARDS

20

Federal Cataloging— Effective Tool of Supply Management

By **S. P. Kaidanovsky**

TO provide effective and economical supply management within the Department of Defense, it has been found necessary that one of the supporting tools be the establishment and use of a single catalog system within and between the military services.

In furtherance of this objective, the 82nd Congress passed Public Law 436, approved by the President July 1, 1952, instructing the Department of Defense to establish a program to name, describe, classify, and number each item of supply repetitively procured, stocked, and issued. The catalog data thus developed is to be used in all military supply management functions from initial procurement through final disposal of the item.

The Washington Conference

A conference and Army, Navy, and Air Force clinics on the Federal Cataloging Program were held on January 26, 1956, in Washington. The conference was co-sponsored by the Department of Defense and the National Security Industrial Association (NSIA).

Founded in 1944, the NSIA serves as a link between American industry and the Armed Forces of the United States. This nonprofit, nonpolitical Association provides the Department of Defense with access to America's pool of industrial ability and experience. Ever growing, NSIA is at present composed of some 600 companies—small and large, including most industries—employing more than one-third of the nation's manufacturing labor force.

The Washington meeting was the last in a series of three such conferences jointly sponsored in Chicago, Los Angeles, and Washington. The reason for these meetings was to provide an industrial forum where the Department of Defense could explain the impact of the cataloging program on suppliers to the Government and where such suppliers could learn the facts about questions which troubled them in relation to the Federal cataloging program.

At the Washington conference, Colonel Joseph R. DeLuca, USAF, Staff Director for Cataloging, Office of the Assistant Secretary of Defense for Supply and Logistics, expertly described the Federal Cataloging Program within the Department of Defense. In his introductory remarks, Colonel DeLuca said: "We all understand the tremendous role of materiel—supplies—equipment in our military forces—both in peace and war. Billions of dollars—thousands of equipment—millions of parts—*these must be managed.*"

Common Supply Identification Language

After World War I, many persons studied the experiences and the problems in military supply, and advocated various supply management improvements. One fundamental improvement recommended was a common supply language of item identification by all Armed Services. It required the same name, the same description, the same commodity classification, and the same stock number, regardless of the military supply system or pipe line in which the item is managed.

Organization of the Federal Cataloging Program

Administration. The authority to administer the Federal Cataloging Program is assigned to the Assistant Secretary of Defense for Supply and Logistics, the Honorable Thomas P. Pike.

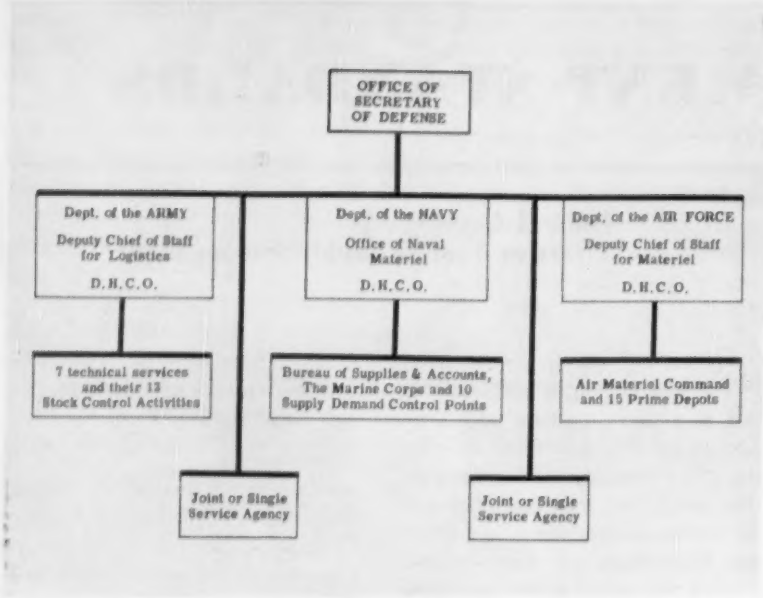
Cataloging Operations. The actual cataloging operations in the Department of Defense are performed at three different levels:

1. Office of the Secretary of Defense level, under the direction of Mr Roger E. Gay, Director of Cataloging, Standardization, and Inspection. This office establishes policies, programs, and procedures, exercises over-all control, and centrally processes and approves the cataloging tools and item identifications, including the assignment of Federal Stock Numbers. It also maintains the complete master supporting files of all Federal identification data for all items in the program.

The operation of converting the military supply systems to a common identification language is under general policy direction of the Director of Requirements, Procurement, and Distribution, Mr Lloyd H. Mulit.

2. The Military Departmental Headquarters level, that is, the Army, Navy, and Air Force, performs the functions of departmental direction, control, and coordination.

Mr Kaidanovsky is Technical Director of the Management and Technical Services, New York. He was formerly chairman, Federal Interdepartmental Standards Council; technical consultant, Federal Specifications Board, and editor Standards World.


OFFICE OF SECRETARY OF DEFENSE
Dept. of the ARMY
Deputy Chief of Staff for Logistics
D.H.C.O.
Dept. of the NAVY
Office of Naval Materiel
D.H.C.O.
Dept. of the AIR FORCE
Deputy Chief of Staff for Materiel
D.H.C.O.
7 technical services and their 13 Stock Control Activities
Bureau of Supplies & Accounts, The Marine Corps and 10 Supply Demand Control Points
Air Materiel Command and 15 Prime Depots
Joint or Single Service Agency
Joint or Single Service Agency

Department of Defense
Organization for Cataloging
D.H.C.O.—Departmental Headquarters Cataloging Office

3., The Bureau, Technical Service, and Command level, performs technical research and identification work.

The Department of Defense Organization for Cataloging is shown on the chart, page 84.

In summary, there are 26 military participating cataloging activities in the program. These activities are doing their work under the uniform policies, procedures, and tools of item identification in the Federal Catalog System.

The identification research is accomplished by the technical personnel at operational level in the field. Industry is actively participating in furnishing technical data for identification purposes and has contributed materially to the progress of the program.

The Federal Item Identification

Each Federal item identification consists of four basic elements:

1. Name
2. Identification (descriptive or reference characteristics)
3. Classification
4. Stock number

Item Name

Under the Federal Catalog System, a single name is established for each item of supply. Approximately 19,500 approved item names have been established to date for use as Federal item names in the military supply system. They are published in the Department of Defense Cataloging Handbook H6-1, available from the Superintendent of Documents, U. S. Government Printing Office. This Handbook is without doubt the most comprehensive dictionary of supply item names in existence. It also contains colloquial names which are cross referenced to the approved item name. Over 30,000 colloquials are included to date.

Methods of Item Identification

There are two basic methods of item identification:

1. Descriptive Method
2. Reference Method

Descriptive Method of Item Identification. This method is a *direct* method of using words to describe the item by its essential characteristics. It requires the use of approved item names and description patterns. A description pattern is a uniform tool to describe the item in a standard way and sequence. The Federal Catalog System has to date approximately 10,650 patterns.

(For detailed discussion of basic name, approved item name, colloquial name, description pattern, and item description, see "Government Suppliers Participate in the Federal Cataloging Program," S. P. Kaidanovsky, THE MAGAZINE OF STANDARDS, November, 1954.)

There are three types of Descriptive Methods of Item Identification:

Type 1. Completely describable by words.
Manufacturer's data not essential.
Type 1a. Describable by words.
Manufacturer's data is necessary.
Type 1b. Describable by words.
Manufacturer's data essential.
Manufacturer's number not "single identifying" (other identification needed).

Reference Method of Item Identification. This method is an indirect method of identifying items of supply through reference to the identifying number and the supporting data of one or more manufacturers. There are two types of the Reference Method of Item Identification:

Type 2. Not capable of adequate description by words.
Manufacturer's data essential.
Type 2a. Not capable of description by words.
Manufacturer's data essential.
Manufacturer's number not "single identifying" (other identification needed).

The Federal Supply Classification

The Federal Supply Classification provides *uniform* commodity groups and classes for all items and will replace the various *non-uniform* commodity classification systems currently in use.

The Federal Supply Classification at present includes 75 major families called FSC groups. Each of these groups is assigned a 2-digit code. For example, group 67 is Photographic Equipment.

As a further subdivision for management purposes, each 2-digit FSC group is divided into *classes*. Each class is designated by an additional 2 digits, thus making a 4-digit code classification. For example, Class 6710-Cameras, Motion Picture,

6720-Cameras, Still Picture, 6730-Photographic Projection Equipment, 6740-Photographic Developing and Finishing Equipment.

To date 75 groups and 533 classes have been developed by the supply managers of the military services and the Office of Cataloging, dictated by current management needs as well as by possible future needs.

Colonel DeLuca emphasized that "The Federal Supply Classification is a dynamic thing. As management needs change, additional groups and classes will be developed, the definitions of others will change, and our techniques of classification will also follow our needs of management. It must be remembered that the classification system is an internal management tool for the Department of Defense and is governed by our management requirements. The uniform Federal Supply Classification provides the Department of Defense with uniform management categories throughout our organizations, functions, operations, and pipe lines."

Federal Stock Numbering System

To meet the military supply system management requirements, a Federal Stock Numbering System has been developed. This system is an 11-digit *semi-significant* number made up entirely of numerals. It is divided into two parts as follows: The first 4 digits are the Federal Supply Classification assigned to the item. For example, 5310, where 53 represents hardware and 5310, washers. These 4 digits are designated as the Federal Supply Classification Code.

The remaining 7 digits are a sequentially assigned serial number identifying this specific item. In this case 184-8977 identifies a specific lock washer. These 7 digits are assigned to one and only one item of supply throughout the entire system. They are designated as the Federal Item Identification Number, abbreviated as the FIIN.

In other words, the 11-digit Federal Stock Number for Lock Washer 5310-184-8977 consists of a 4-digit supply classification code 5310 and 7-digit Federal Item Identification Number 184-8977.

Civil Agency Cataloging

The Department of Defense under Public Law 436 and the General Services Administration under Public Law 152 have been working in close coordination throughout the development of the Federal Catalog System. The extension of this system to the actual items of supply of the Federal Supply Service, GSA, is now being performed by its Standards Division, Mr Willis S. MacLeod, Director.

Approximately 4,200 items of Federal Supply have been identified under the Federal System to date. By July 1, 1957 the GSA will identify a total of 130,000 items that the Federal Supply Service procures for the Federal civil agencies. These are items in the Federal Supply Schedules, Service Stores, Direct Order Procurement, and Military Support areas.

International Cataloging

The same need for a common supply identification language which led to the establishment of the Federal Catalog System has motivated action to establish a uniform catalog system for all member nations of the North Atlantic Treaty Organization, NATO. In January 1954, the Air Board of the Military Agency for Standardization, NATO, convened a working party in London to review various systems of cataloging and to recommend a common system for all member nations. The working party, on which 11 member nations participated, drafted two proposed Standardization Agreements (STANAGs). One, Draft Stanag No. 3150, provided for the adoption of the Federal Supply Classification System developed jointly by the United States and the United Kingdom as the NATO Supply Classification. The other, Draft Stanag No. 3151, provided for the adoption of the system of item identification as employed in the Federal Catalog System as the basis for the identification and stock numbering of items of supply for NATO Armed Forces.

Federal Supply Conversion

In order to realize the full benefits of the single identification system, it is necessary to change over the existing military supply systems and operations to the use of the new supply identification language. This change-over is called *Conversion*. Since conversion has direct impact on the military supply systems and their management, the responsibility for its accomplishment is that of supply managers in the Army, Navy, Air Force, and Marine Corps. Keeping this in mind, specific operations and schedules for conversion have been established for each of these services.

How Does the Federal Catalog System Assist Management?

As so well stated by Colonel DeLuca, it does assist management by—

1. Revealing and consolidating into one identification previous different identifications for the same item
2. Facilitating supply interchange between supply systems
3. Coordinating procurement; in other words, eliminating concurrent buying and selling, or Service competition
4. Permitting effective redistribution and maximum utilization of our assets for all users
5. Reducing record keeping, personnel, and in certain instances inventories, storage space, and warehousing where item consolidations occur within and between systems
6. Revealing the existence of multiple managers for the same item within departmental supply systems
7. Improving material requirements determination, budgeting, and financial accounting
8. Assisting standardization by revealing what we have
9. Permitting the establishment of uniform freight rates
10. Assisting in disposal operations
11. Improving government-industry relationships through military contractors having one item-identification language for the Department of Defense instead of many
12. Assisting management by providing a network of item intelligence.

The Federal Cataloging Program is a National Asset.

FROM OTHER COUNTRIES

Members of the American Standards Association may borrow from the ASA Library copies of any of the following standards recently received from other countries. Orders may also be sent to the country of origin through the ASA office. Titles are given here in English, but documents are in the language of the country from which they were received. An asterisk * indicates that the standard is available in English as well. For the convenience of readers, the standards are listed under their general UDC classifications. In ordering copies of standards, please refer to the number following the title.

001.4 SCIENTIFIC NOMENCLATURE

Netherlands (HCNN)

Terms used in sampling and inspection V 1132

United Kingdom (BSI)

Glossary of terms relating to automatic digital computers BS 2641:1955

003.62 SIGNS, NOTATIONS, SYMBOLS

France (AFNOR)

Symbols used in matrix algebra NF X 02-110

53 PHYSICS AND MECHANICS

Austria (ONA)

Pressure gages: definitions, methods of operating, etc ONORMM 5830

532 MECHANICS OF FLUIDS, HYDRAULICS

United Kingdom (BSI)

Flow cups and methods of use (for the consistency control of industrial materials such as paints and varnishes) BS 1733:1955

54 CHEMISTRY

Japan (JISC)

17 stds for different chemical reagents JIS K 8042, -8051, -8101/2, -8113, -8231, -8234, -8530, -8540, -8739/40, -8804, -8891, -8922, -8980, -8987, -9005

Germany (DNA)

Apparatus used in dairy products laboratories DIN 10281/2

Poland

Symbols for basic units PN C-01370

3 stds for reagents PN C-80061/2, -80066

4 stds for reagents PN C-80547, -550, -059, -064

United Kingdom (BSI)

Copper laboratory autoclaves BS 2646:1955

614.8 PREVENTION OF ACCIDENTS. SAFETY MEASURES

Austria (ONA)

Graphical symbols for fire-brigade maps ONORM F 2031

Chile (INDITECNOR)

Safety code for wrecking work INDITECNOR 53-5

Safety code for excavating work INDITECNOR 53-7

Denmark (DS)

8 new standards for Type A, B, C, and D hose couplings with metallic and rubber packings DS 752/9

4 revised stds for Type A, B, C, and D hose couplings DS 381/2 and 750/1

Germany (DNA)

Stretcher and stretcher carrier DIN 13024/5

Fire pressure hoses, rubber covered and plain DIN 14811

615 PHARMACY. THERAPEUTICS

Poland

17 stds for various surgical instruments, etc PN Z-54 . . . series; Z-55103/6; Z-55152, -162, -199; Z-56142, Z-57526

621.1 STEAM, STEAM ENGINES, BOILERS

Japan (JISC)

Construction of steam boilers for land use JIS B 8201

621.13 RAILWAY STEAM LOCOMOTIVE

Czechoslovakia (CSN)

17 stds for union joints for locomotive pipings CSN series 2930 . . .

11 stds for locomotive feed valves and cocks and their details CSN series 2935 . . .

Germany (DNA)

Coupling of intake feedwater pipe DIN 36501 Bl.1

Valve lids for nominal width 32 to 80 DIN 33106

Weights for counter-weight brakes DIN 37151

Coupling detail DIN 37351

6 stds for different sizes counterweight brake DIN 37152/7

621.3 ELECTRICAL ENGINEERING

Australia (SAA)

Rigid metallic conduit for electrical wiring AS C.66 Part 1-1955

Approval and test for electric lawnmowers AS C.156-1955Ap.

Austria (ONA)

Insulator pin for series S insulators ONORM E 4155

Insulators series N up to 1 kv voltage ONORM E 4100

Intensity of electric fields and voltages ONORM A 6445

Different brackets and clamps for lightning arrester circuits ONORM E 2960

Graphical symbols for lightning arresters ONORM E 2970

Lightning grounding conductors ONORM E 2950

Basic values of temperature ranges ONORM M 5801

Bulgaria

L.T. cables for automobile electric wiring BDS 1138-54

6 stds for telephone jacks and similar telecommunication appliances BDS 1146/7, 1861/3, 1798-54

Telephone cords BDS 1597-53

Incandescent lamps for general use BDS 1835-54

6 types of taper-and-nut joint clamps BDS 499/504-54

Cast iron terminal cable boxes BDS 1704-54

Canada (CSA)

Construction and test of electrical equipment for oil-burning apparatus C.22.2 No. 3-1955

Construction and test of panelboards and panelboard enclosures C22.2 No. 29-1955

Construction and test of service-entrance cables C22.2 No. 52-1955

Czechoslovakia (CSN)

3 stds for details of connecting plugs between motor car and trailer CSN 304450/2

Germany (DNA)

Entrance switch boxes for house installations DIN 43636

Washers for connecting terminals DIN 46282

Outlet box covers DIN 48808

Batteries for portable radios DIN 40852

Insulating bushing, indoor type DIN 48100, Bl.1

Pin-type insulators for voltages 10 to 30 kv DIN 48004

Insulated screwing covers DIN 48256

6-type cartridge fuse holders 6 amp 60 v DIN 41682

Hairspring for electric measuring instruments DIN 43801, Bl.1

Positive plates for storage batteries DIN 40730

Testing of insulating oils for sulfuric acid content DIN 51553

Insulated lead-in bushing for house entrance DIN 1049

Israel (SII)

Regulations for electric wiring on insulators SI 108 (304)

Plastic connection boxes for RR or PVC cables, Specifications SI 145

Plastic connection boxes for RR or PVC cables, Dimensions SI 148

Electric radiating domestic heaters SI 149

Boxes with insulated conduits with light steel sheath SI 153

Japan (JISC)

Insulating tape JIS C 2201

Oil HT transformers, medium size JIS C 4301

Horn type loudspeaker JIS C 5504

2 stds for rotary variable carbon resistors JIS C 6404/5

Hard polyvinyl conduits JIS C 8430

Air depolizer wet cell JIS C 8503

Netherlands (HCNN)

Safety code for electrical "paternoster" type passenger elevators N 1083

Electroplated coating of nickel on steel and brass V 2168

Microscopic measurement of electroplated coating V 2169

Dry flashlight batteries V 3042

Terminal lugs for electric cables V 3062

New Zealand (NZSI)

Reinforced concrete poles for electrical transmission (not pre-stressed) 1054, March, 1954

Outlet boxes for use with flush-mounting electrical accessories 1201, June, 1954

Poland

Shaft ends of electrical machines PN E-80400

Rubber-insulated cables used in mining PN E-90004

Bare copper wire for power installations PN E-90011
Clamps for overhead lines PN E-92326
Aluminum rubber-insulated cables PN E-90023
Armored copper wire PN E-90018
Epstein method for determination of magnetic losses PN E-04451
10 stds for electrical insulated copper and aluminum wires and cables PN E-90014/15, -90019, -90024/6, -90029/31, T-90016
Testing of magnetic properties of sheet metal used in electrical engineering PN E-04453
Straight insulators for overhead lines up to 1 kv PN E-91036
Clamps for overhead lines PN E-92323/5
Copper cord for electrical appliances PN E-90017

Switzerland (VSM)

4 standards for varnish-insulated copper wire with insulating layer, classes 1, 2, 3 and 4 VSM 23741/4

621.4 INTERNAL COMBUSTION ENGINES, HEAT AND OTHER SPECIAL ENGINES OTHER THAN STEAM ENGINES

Germany (DNA)

3 stds for internal combustion motors for general use; technical data for different conditions of working DIN 6270, and Beibl. 1, 2

New Zealand (NZSI)

Antifreeze liquids, government purchasing series GP 14, March, 1954

621.5 PNEUMATIC MACHINES. REFRIGERATION TECHNOLOGY

Czechoslovakia (CSN)

Hydraulic brake cylinder details CSN 303520

Germany (DNA)

Airtight connections for transportation tanks and casks containing compressed and liquified gases DIN 4676

New Zealand (NZSI)

Domestic electric refrigerators 363, August, 1948

621.61 DEVICES FOR CONVEYANCE AND STORAGE OF GASES AND LIQUIDS, CONDUITS AND PUMPS

Czechoslovakia (CSN)

Seamless steel pipes. General CSN 420250
4 types of spigot seamless steel pipes CSN 425780/3

Germany (DNA)

2 types of drum screwing plugs DIN 6631, 6633

India (ISI)

Oil resisting hose IS 635-1955

Israel (SII)

Non-reinforced concrete cylindrical pipes SI 27

621.74 FOUNDRY WORK

Bulgaria

6 stds for methods of testing gray iron castings BDS 1799, 1839/0, 1845/6, 1895-54

Germany (DNA)

Testing of molding sand DIN 52401

621.75 TOOLS AND MACHINERY MANUFACTURE. FITTING. ASSEMBLING

Germany (DNA)

5 stds for gages for hub and shaft serrations DIN 2262 Bl. 1, 2, 2263/5
4 stds for gages for shaft serrations DIN 2261, 2263, 2266/7

Poland

3 stds for tolerances for inch screw thread PN M-02031, -02032, M-53304
2 stds for tolerances and dimensions for metric screw thread PN M-02005, -02105
6 stds for plug gages PN M-53030/1, -33, -50/1, 54/5

621.78 HEAT TREATMENT OF METALS. HARDENING. TEMPERING. ANNEALING. CEMENTATION

Denmark (DS)

Glossary of terms and definitions for heat treatment of metallic materials in solid condition DS 10601

621.79 VARIOUS WORKSHOPS AND PROCESSES FOR TREATMENT OF METALS

Bulgaria

Connecting nipples for rubber hose of welding gas torch BDS 1762-54
Acetylene torch BDS 1761-54

Czechoslovakia (CSN)

Welding rods for carbon steel CSN 420172
2 stds for electrodes for arc welding CSN 420151, -0160

Poland

Testing of welds PN M-69733

621.798 PACKING AND DESPATCH EQUIPMENT

France (AFNOR)

Drop test of packing containers NF X 41-005
Method of testing tightness of packing containers NF X 41-007

Japan (JISC)

Gas welding rods for mild steel JIS G 3534

Switzerland (VSM)

Rules for preparation of work for spot-welding steel VSM 14101
Method of calculation for spot-welding steel VSM 14103

Poland

Sprocket wheels PN M-03051
Inch thread from 3/16 to 4 in. diameter PN M-02025
Taper pins PN M-85020
Gages for metric and Whitworth Thread; Tolerances PN M-52300
Gages for pipe Whitworth thread PN M-53302
Fine metric thread series C, D, E, F PN M-02008/11
Tolerances for Whitworth thread from 3/16 to 4 in. diameter PN M-02125
Tolerances for metric thread from 0.3 to 0.9 mm diameter PN M-02112
Metric thread, series A PN M-02006
Metric screws from 0.3 to 0.9 mm nominal diameter PN M-02012
Tolerances for metric thread class 1 and 2 PN M-53301

621.8 MACHINE PARTS. HOISTING AND CONVEYING MACHINERY. POWER TRANSMISSION. MEANS OF ATTACHMENT. LUBRICATION

Austria (ONA)

Rules for construction of elevators ONORM B 2450
Rules for construction and testing of escalators ONORM B 2460
3 types of turnbuckles ONORM M 5480/2
3 stds for Acme type thread ONORM M 1540/2
Round thread ONORM M 1550
Wrench openings ONORM M 1610
Cap nuts ONORM M 5251
Hexagon head screws, unfinished ONORM M 5010

Bulgaria

Vee-belts BDS 1523-54
Swivel hooks for hand hoists BDS 1608/9-54
Metric thread, tolerances BDS 1590-53

Czechoslovakia (CSN)

3 stds for journals CSN 023648, -4605, -4642
2 stds for radial ball bearings type 63 CSN 024640/1

Germany (DNA)

Base plate for pillow blocks DIN 189
Shoulder screws, diameter 8 to 100 mm DIN 1438, Bl. 1, 2
Load-handling fork trucks DIN 15133
Steel stop rings and set screws DIN 703
Hammer-head bolts, Whitworth DIN 261, Bl.2
Weldable stud with Whitworth threaded end DIN 525, Bl.2
Anchor bolts, Whitworth DIN 797, Bl.2
Square head screw, Whitworth thread DIN 478, Bl.2
Turbidity and solidification index of lubricating oils DIN 51583
Lubricants. Investigation of their application DIN 51500, Bl.2

Japan (JISC)

Taper roller bearings JIS B 1534
Rules for inspection of roller bearings JIS B 1545
Fine screw thread, small size JIS B 0201
Screw thread for sewing machines JIS B 0226

Poland

Tolerances for fine metric thread, series C PN M-02108
2 stds for Acme-type thread 10-300 mm diameter PN M-02021, -018
Wrench opening PN M-02048

Switzerland (VSM)

Whitworth thread 1/4 to 2 in.: length of vanished thread VSM 12111, Bl.1
Whitworth thread 3/16 to 6 in. and gas thread G 1/8 in. to G 18 in.: form and size of necks VSM 12111, Bl.2, 3
Metric thread M 1 to M 52: length of vanish thread VSM 12112, Bl.1
Metric thread M 2 to M 150: form and size of necks VSM 12112, Bl.2, 3
Bolts 90 deg. countersunk round pin head 1/4 in. to 1 in. Whitworth thread and hexagon nut VSM 12511
Bolts, 90 deg. countersunk round pin head, M 6 to M 27 metric thread and hexagon nut VSM 12512
Bolts, 90 deg. countersunk round square neck head, 1/4 in. to 1 in. Whitworth thread and hexagon nut VSM 12513
Bolts, 90 deg. countersunk round square neck head M 6 to M 27 metric thread and hexagon nut VSM 12514
Different types of keys VSM 15112

BOOK REVIEWS

Proceedings 1955. Standards Engineers Society. *80 pp. 8½ x 11 in. Heavy paper cover. Standards Engineers Society, P. O. Box 281, Camden, N. J. $3.00.*

Twenty-four papers by national authorities are included in the Proceedings of the Standards Engineers Society's Fourth Annual National Meeting, just published.

The broad impact of standards today is indicated in the subjects discussed:

Organization of the company standards program (panel discussion of standards programs operated by such companies as Scintilla Division, Bendix Aviation; IBM; General Precision; and Ansco)

Standardization of electrical apparatus and components (panel discussion)

Should standards be mandatory? (the case for voluntary standards)

The American Standard for preferred thicknesses of thin flat metals—how to make it work (panel discussion representing viewpoints of metal producers; warehousemen; and users)

Standards policy in the distribution of consumer goods (as related to mail order house operation)

Without standards, no automation (standardization and automation with reference to IBM's electronic computer design and manufacturing)

National strength related to standardization (The Federal Catalog System and the Defense standardization program — how they work)

What's the future of standards? (as analyzed by executives of a number of leading technical societies)

The Standards Engineers Society is a technical society organized in 1947. Headquarters are at Camden, N. J. Local sections have been established in Philadelphia; Southern Tier (Binghamton, N. Y.); Metropolitan New York; Southern New England (Hartford, Conn.); Tri-State (Pittsburgh, Pa.); and Washington, D. C. The Fourth Annual National Meeting of the Society was held at Hartford, Connecticut, September 29, 30, and October 1.

The Story of Standards. *John Perry. 1955. Funk & Wagnalls, New York. $5.00.*

As indicated on the dust cover flap, "The Story of Standards" is told from the vantage point of the National Bureau of Standards at Washington.

"Standards" in this context refers to the bases for measurement and the basic units derived therefrom.

In developing his story, Mr Perry in his early chapters traces the history of standards for various types of measurement and makes clear the confusion which existed when there were in fact either no standards or standards which varied from place to place. He outlines the truly remarkable history of efforts to obtain Congressional action on establishing a system of measurement in this country with the ultimate result that the metric system is permissive in this country and that our standards of length and mass are referred to physical standards of the metric system.

He makes clear the reasons for failure to adopt the metric system, which are in the present day simply the appalling cost of converting American heavy industry with its myriad drawings, jigs, gauges, tools and fixtures, all dimensioned in inches and fractions, many of them decimal, to the metric system. To the owners and operators of the businesses concerned with these items, the net result of the change is seen only as a cost without a compensating return.

The development of the National Bureau of Standards from its authorization in 1902 is traced by indicating the part the Bureau has played in the transformation of this country to a nation of mass production, with electricity as its most common and most universally used manifestation of energy. The scientific developments in which the Bureau has played a leading part in both peace and war are well depicted.

The closing chapters of the book deal with the current difficulties in financing scientific research, particularly fundamental research, with the new standards the Bureau has developed to meet the requirements of new industries, and finally with the fascinating possibilities of electronic computing machines with prodigious memories to whose development the Bureau has contributed so much.

It is striking that in this whole "Story of Standards" there is no mention of the work carried on through the American Standards Association, much of it under the sponsorship of the National Bureau of Standards. This work has in many instances been the means of practical application of the fruits of the Bureau's scientific research.

"The Story of Standards" is a book which will repay reading.

G. F. H., Jr

Hoffman Receives Law Degree

S. David Hoffman, head of the electrical engineering department of the American Standards Association and assistant secretary of the United States National Committee of the International Electrotechnical Commission, was admitted to the New York State Bar late last year. Mr Hoffman was graduated with an LL.B. degree from St. John's University School of Law.

Benoit and Houser
Head Mechanical Standards Board

THE Mechanical Standards Board, responsible for 42 projects for development of American Standards in the mechanical engineering field, has elected two prominent men to serve as officers for 1956.

Each of the men has served over a quarter of a century in standardization and has contributed to many of the 145 American Standards for mechanical engineering.

Lester W. Benoit, executive secretary of the Manufacturers Standardization Society of the Valve and Fittings Industry, was elected chairman of the Board. He is also chairman of the Conference of Executives of Organization Members of the ASA (CEOM) and serves on ASA's Standards Council.

Perry L. Houser, president, Metal Cutting Tool Institute, was named vice-chairman. He served for seven years as chairman of the B5 committee on machine tools and their components.

Mr Benoit began a career in standards in 1926. Since then he has been one of the country's leaders in the fight for standards in the piping and valve and fittings industries. He is secretary of Sectional Committees B16, Cast-Iron Pipe Flanges and Fittings, and B31, Code for Pressure Piping, and is a member of a number of other sectional committees.

He has been honored with an award by the Standards Council for "devotion of energy to the furtherance of the standards movement as a means of advancing the national economy."

As chairman of CEOM, Mr Benoit helped to plan the program for the Sixth National Conference on Standards.

Before his present affiliation with the Metal Cutting Tool Institute, Mr Houser was supervisor of manufacturing standards research for the International Harvester Company. He received the 1953 ASA Standards Medal, the nation's highest award for "leadership in the development and application of voluntary standards."

In January of this year, the Standards Council cited Mr Houser for leadership in the national standards movement. He is a past chairman of the ASME Standardization Committee.

Lester W. Benoit

Perry L. Houser

Five-Day Safety Conference

New York's 26th annual Safety Convention and Exposition starts April 16, and will continue for five days. The American Standards Association has joined other national associations, societies, and government organizations as a cooperating organization under the leadership of the Greater New York Safety Council which sponsors the convention. Henry Lamb, ASA Safety Engineer, is a member of the executive committee.

The 60 sessions will be held at the Hotel Statler, New York City. More than 200 addresses and reports covering most phases of traffic, home, industrial, school, and public safety are scheduled. Special problems will be discussed concerned with aviation, commercial vehicles, maritime and longshore operations, petroleum, hospitals, fire protection, public utilities, safety among Government employees, building management, industrial nursing and hotels, in addition to more general problems. The exposition will show the latest developments in safety devices and equipment, not only for industrial safety but also for reduction of traffic accidents and home accidents.

International Committee Works On Common Names for Pesticides

Starting its work to recommend common names for pest control chemicals, Technical Committee 81 of the International Organization for Standardization has already agreed on a preliminary list of names. A draft of the list is being prepared for circulation to the committee.

This action was taken at the first meeting of the committee at London, England, November 14-17, 1955. France, Germany, India, The Netherlands, South Africa, United Kingdom, and the United States were represented as active members; Czechoslovakia and Switzerland, as observers. A representative of the World Health Organization was also present.

Chairman of the meeting was H. J. Jones, OBE, chairman of the British Standards Institution's committee on the same subject.

Dr H. L. Haller, Assistant Director, Crops Research, U.S. Depart-

ment of Agriculture, represented the American Standards Association.

The committee outlined the scope of its work as "to agree on common names for chemicals which are widely used for the control of pests." As part of its program, the committee will also promote the adoption and use of these common names, both nationally and internationally.

In place of the present term "pest control chemicals," the committee is proposing a change to the term "pesticides." "Pest control chemicals," or "pesticides," are defined as the pure chemical, whether admixed with other chemicals or not, used for the control of pests, including insects, mites, nematodes, weeds, fungi, and rodents.

A number of standards for common names already in existence were before the committee for consideration, including British Standards, common names approved by the U.S. Interdepartmental Committee on Pest Control, and standards of France, The Netherlands, and Germany.

In choosing names, the committee will attempt to keep the names short, distinctive in sound and spelling, and will attempt to use names which have already received national adoption. Only those compounds that are likely to be manufactured and used in reasonable quantities will be given a common name.

If possible, the common name will be derived from a combination of syllables from the scientific chemical name. Where a compound is used as a salt or an ester, the common name will be followed by a dash and the name of the combining substance.

The procedure for registering common names approved by Technical Committee 81 is being taken up with the International Bureau for Protection of Industrial Property. It is also recommended that members of the committee take steps to safeguard these common names in their countries. The committee is recommending that the General Secretary of ISO transmit the names when agreed upon to the United Nations with the request that they be given as wide publicity internationally as possible.

In line with the recommendation of Technical Committee 81, an American Standard Procedure for the Acceptance of a Standard Common Name for a Pest Control Chemical has just been approved by ASA. The procedure was developed by Sectional Committee K62, sponsored by the U.S. Department of Agriculture. The standard is identified as K62.1-1956.

Gaillard now offers Private Company Seminar *in addition to New York sessions*

THE Gaillard Seminar on Industrial Standardization, held twice a year in New York City since 1947 and so far attended by about three hundred men — mostly representatives of individual companies —, will now be available also to industrial enterprises as a "private company seminar" held at their headquarters. As Dr Gaillard points out, "this will make it easy for top management to assemble around the conference table key men from various departments and plants, to determine how standards can be put to work most effectively for the benefit of their own administrative units and the company as a whole. A private company seminar may be the first step toward organized standardization which will improve quality of product and service, and at the same time reduce operating cost. Organized standardization facilitates executive control through better coordination of departmental functions and multi-plant operation, without undue centralization of decision making."

Top management of a large manufacturing concern operating plants in the United States and foreign countries recently asked for this new type of seminar. It was held at the company's headquarters and attended by eighteen representatives.

Companies interested in similar arrangements are advised to write to Dr John Gaillard, Management Counsel, 400 West 118 Street, New York 27, N. Y. Formerly a member of the ASA staff and a lecturer at Columbia University, Dr Gaillard now specializes in advice on standardization problems.

The Gaillard Seminar in New York City will continue to be held twice a year. The latest session (January, 1956) was attended by delegates from thirteen organizations, two of which (marked by an asterisk) had been represented previously.

Dictaphone Corporation
Giddings & Lewis Machine Tool Co
Hydro-Electric Power Commission of Ontario
*International Business Machines Corp
Merck & Co, Inc
Owens-Corning Fiberglas Corp
Shakeproof Division, Illinois Tool Works
Singer Manufacturing Co
Society of Motion Picture and Television Engineers
Square D Company
*Union Carbide Nuclear Co
Veeder-Root, Inc
Worthington Corporation

At the January session the suggestion was made and unanimously supported by all conferees that the time devoted to the subject, Company Standardization, be increased at the next seminar to three full days (six conferences). Accordingly, the five-day program of the seminar to be held in New York City, June 18 through 22, 1956, will comprise one day's discussion of the fundamentals of standardization which govern all of its applications; three days' discussion of the organization and procedure of Company Standardization; and one day's discussion of the practical application of standards and the technique of writing specifications.

Details of the June, 1956, Gaillard Seminar and advance reservations may be obtained by writing to Dr Gaillard at the address given above.

SAM Honors Hallowell

H. Thomas Hallowell, Jr (right), president of Standard Pressed Steel Company, and president of the American Standards Association, was honored by the Philadelphia Chapter of the Society for Advancement of Management, February 10. The award was presented by Frederic D. Justin, Philadelphia Gas Works, president of the local SAM chapter.

The citation included "use of capital to increase productivity, direction of research and development, insistence on standardization, improvement of quality control procedures, emphasis on in-plant training, and creation of stable employment" among Mr Hallowell's contributions to good management.

Chemical Industry Advisory Board Urges New Standards

asks new project on cooling towers; works for thin-wall pipes and for conservation of nickel

A REQUEST for a new standardization project, a program for conservation of nickel, and progress in bringing about inclusion of thin-wall pipe in standard specifications are recent results of the work of the Chemical Industry Advisory Board.

The new project requested is for the development of standards for water cooling towers.

Installation of water cooling towers is rapidly increasing throughout the country. However, the Board reports, some towers have given unsatisfactory service, and a subcommittee organized in November, 1955, has found that a standardization program is needed. Such a program will be mutually beneficial to both manufacturers and users of cooling towers in many industries, it declares. It is planned to make maximum use of existing standards in the field, or of such portions of them as may be found to be suitable.

Work in this field has been carried out by such organizations as the Cooling Tower Institute, the American Society of Mechanical Engineers, and the Air Conditioning and Refrigeration Institute.

The Board believes that the proposed standardization will result in important savings. Standards would help bring about use of the full capacity of power and manufacturing equipment dependent upon cooling towers, with lower power costs, and reduced total cost per unit of cooling capacity, the Board reports. Standards would also assure manufacturers and users that consideration would be given to whether adequate supplies of materials are available and the possible use of substitute materials for construction of cooling towers.

Among objectives of the program would be development of standard test procedures; standard components and certified performance; standard methods of predicting cooling tower performance; and encouragement of effective new cooling tower designs.

The Chemical Industry Advisory Board is also making a special effort to have thin-wall pipe covered in standard specifications for use by the chemical industry. The thin-wall 5S and 10S is now available in steel pipe, but work is being done now to extend these thicknesses to nonferrous pipe; for example, copper, nickel and aluminum-base alloys, and Hastelloy "B" and "C." An effort is also being made to extend the thin-wall specifications to pipe from 14 in. to 30 in. in diameter. The Board is working on this problem with various ASTM and ASA committees, including Sectional Committee B36 on Wrought Iron and Wrought Steel Pipe and Tubing and ASTM Committee B-2 on nickel base alloy.

Another important program the committee has under way has to do with the problems arising out of the nickel shortage and involves an attempt to reduce the consumption of nickel except where absolutely essential. Although the chemical and process industries use only a small

percentage of the nickel-bearing stainless steels produced, this steel is so essential for the type of equipment used by the chemical industry that the CIAB believes a conservation program is badly needed. The Board has advised J. R. Townsend of its program. Mr Townsend, Sandia Corporation, was recently appointed Consultant by the Office of Defense Mobilization to study the nickel shortage.

The Chemical Industry Advisory Board, which brings the viewpoint of the chemical industry to bear on standardization projects of concern to the industry, has a membership of 11 associations and technical societies. Three new organizations recently became members. These, with their representatives, are:

Chlorine Institute—Robert T. Baldwin, Secretary of the Institute; George W. Benbury, Pennsylvania Salt Manufacturing Company (alternate); W. C. Brooks, Niagara Alkali Company (alternate)

Electrochemical Society—Dr H. R. Neumark, General Chemical Division

Society of the Plastics Industry—Willard deCamp Crater, Naugatuck Chemical Company; Harry Zimmerman, Seiberling Rubber Company (alternate)

H. W. Schmidt, Dow Chemical Company, has just been named member-at-large.

J. G. Henderson, Carbide and Carbon Chemicals Company, is chairman of the CIAB. Mr Henderson represents the Manufacturing Chemists Association.

AMERICAN STANDARDS UNDER WAY

Status as of February 29, 1956

AGRICULTURE

American Standard Approved—

Procedure for the Acceptance of an American Standard Common Name for a Pest Control Chemical, K62.1-1956
Sponsor: U. S. Department of Agriculture

BUILDING AND CONSTRUCTION

Project Initiated—

Application Standards for Thermal Insulating Materials
Suggested Sponsor: American Society of Heating and Air Conditioning Engineers

CHEMICAL INDUSTRY

American Standard Published—

Letter Symbols for Chemical Engineering, Y10.12-1955, (Revision of Z10.12-1946) $1.00
Sponsor: American Society of Mechanical Engineers

CONSUMER GOODS

In Standards Board—

Test Procedures for Household Electric Refrigerators (Mechanically Operated), Revision of B38.2-1944
Sponsors: American Society of Refrigerating Engineers; Clothing and Housing Research Branch, Agricultural Research Service, U. S. Department of Agriculture

Colorfastness to Mill Washing (Silk), AATCC Standard Test Method 4-52; ASA L14.70

Colorfastness to Dry and Wet Heat, AATCC Tentative Test Method 5-52; ASA L14.71

Colorfastness to Rubbing (Crocking), AATCC Standard Test Method 8-52; ASA L14.72

Detection of Phototropism, AATCC Tentative Test Method 32-52; ASA L14.73

Resistance to Water Penetration (rain test) AATCC Standard Test Method 35-52; ASTM D583—54 part; ASA L14.74

Legend

Standards Council—Approval of Standards Council is final approval as American Standard; usually requires 4 weeks.

Board of Review—Acts for Standards Council and gives final approval as American Standard; action usually requires 2 weeks.

Standard Boards—Approve standards to send to Standards Council or Board of Review for final action; approval by standards boards usually takes 4 weeks.

Evaluation of Textiles for Wettability, AATCC Tentative Test Method 39-52; ASA L14.75

Dimensional Changes in Textile Fabrics (Other than Cotton and Linen), AATCC Tentative Test Method 40-52; ASA L14.76

Dimensional Changes in Textile Fabrics (Wool: Accelerated Test), AATCC Tentative Test Method 41-52; ASA L14.77

Resistance to Water Penetration (Impact Penetration Test), AATCC Tentative Test Method 42-52; ASTM D 583—54 part, ASA L14.78

Evaluation of Penetrants for Mercerization, AATCC Tentative Test Method 43-52; ASA L14.79

Colorfastness to Mercerizing, AATCC Standard Test Method 51-52; ASA L14.80

Accelerated Washfastness Tests Nos. IIA, IIIA and IVA Cotton, AATCC Tentative Test Method 61-54; ASA L14.81

Evaluation of the Resistance of Wool Oils to Oxidation in Storage, AATCC Tentative Test Method 62-52; ASA L14.82

Colorfastness to Water, AATCC Tentative Test Method 63-52; ASA L14.83

Evaluation of Continuous Scouring of Raw Grease Wool, AATCC Tentative Test Method 64-52; ASA L14.84

Evaluation of the Snag Resistance of Hosiery, AATCC Tentative Test Method 65-54; ASTM D 1115-54T; ASA L14.85

Damage Caused by Retained Chlorine, AATCC Tentative Test Method 69-52; ASA L14.86

Resistance to Wetting (Dynamic Immersion Absorption Test), AATCC Tentative Test Method 70-52; ASTM D 583—54 part; ASA L14.87

Wool Hose: Accelerated Shrinkage Test, AATCC Tentative Test Method 73-53; ASA L14.88

Relaxation and Felting Shrinkage of Wool Knit Fabrics (except hose), Accelerated Test, AATCC Tentative Test Method 74-53; ASTM D 1284-53T; ASA L14.89

Colorfastness to Mill Washing and Scouring (Wool), ASA L14.6; AATCC Standard Test Method 1-52 (Revision of ASA L14.6-1949)

Colorfastness to Fulling (Wool), ASA L14.5; AATCC Standard Test Method 2-52 (Revision of ASA L14.5-1949)

Colorfastness to Chlorine Bleaching (Cotton), ASA L14.57; AATCC Standard Test Method 3-52 (Revision of ASA L14.57-1951)

Colorfastness to Acids and Alkalies, ASA L14.2; AATCC Standard Test Method 6-52 (Revision of ASA L14.2-1949)

Colorfastness to Degumming (Silk), ASA L14.4; AATCC Standard Test Method 7-52 (Revision of ASA L14.4-1949)

Colorfastness to Stoving (Wool), ASA L14.9; AATCC Standard Test Method 9-52 (Revision of ASA L14.9-1949)

Colorfastness to Carbonizing (Wool), ASA L14.3; AATCC Standard Test Method 11-52 (Revision of ASA L14.3-1949)

Colorfastness to Peroxide Bleaching (Silk), ASA L14.7; AATCC Standard Test Method, 13-52 (Revision of ASA L14.7-1949)

Colorfastness to Perspiration, ASA L14.56; AATCC Standard Test Method 15-52 (Revision of ASA L14.56-1951)

Evaluation of Ordinary Wetting Agents, ASA L14.11; AATCC Standard Test Method 17-52 (Revision of ASA L14.11-1949)

Resistance to Water Penetration (Hydrostatic Pressure Test), ASA L14.59; AATCC Standard Test Method 18-52; ASTM D583—54 part (Revision of ASA L14.59-1951)

Resistance to Wetting (Static Immersion Absorption Test), ASA L14.61; AATCC Tentative Test Method 21-52; ASTM D 584-54 (Revision of ASA L14.61-1951)

Resistance to Wetting (Spray Test), ASA L14.60; AATCC Standard Test Method 22-52; ASTM D 583-54 part (Revision of ASA L14.60-1951)

Accelerated Aging of Textiles Dyed with Sulfur Colors, ASA L14.1; AATCC Standard Test Method 26-52 (Revision of ASA L14.1-1949)

Colorfastness to Peroxide Bleaching (Cotton), ASA L14.58; AATCC Tentative Test Method 29-52 (Revision of ASA L14.58-1951)

Colorfastness to Pleating, ASA L14.63; AATCC Tentative Test Method 31-52 (Revision of ASA L14.63-1951)

Methods of Testing and Tolerances for Cotton Yarns, ASA L14.13; ASTM D 180-54T (Revision of ASA L14.13-1953)

Methods of Test for Wool Content of Raw Wool (Laboratory Scale), ASA L14.40; ASTM D 584-54T (Revision of ASA L14.40-1954)

Withdrawal Being Considered—

Test for Mercerization (AATCC 51-52; ASA L14.10-1949)

Test for Colorfastness of Textiles to Sea Water (AATCC 63-52; ASA L14.8-1949)
Sponsors: American Association of Textile Chemists and Colorists; American Society for Testing Materials

ELECTRIC AND ELECTRONICS

In Board of Review—

Specifications for Aluminum Bars for Electrical Purposes (Bus Bars), ASTM B236-55T; ASA C7.27 (Revision of ASTM B236-52T; ASA C7.27-1953)

Specifications for Zinc-Coated (Galvanized) High Tensile Steel Telephone and Telegraph Line Wire, ASTM A326-52; ASA C7.30 (This standard covers steel line wire formerly covered by a portion of G8.3-1944)

Specifications for Zinc-Coated (Galvanized), Iron or Steel Telephone and Telegraph Line Wire, Revision of ASTM A111-43; ASA G8.3-1944

Specifications for Zinc-Coated Steel Wire Strand "Galvanized" and Class A ("Extra Galvanized"), Revision of ASTM A122-41; ASA G8.6-1943

Specifications for Zinc -Coated Steel Wire Strand (Class B and Class C Coatings), Revision of ASTM A218-41; ASA G8.11-1944
Sponsor: American Society for Testing Materials

Incandescent Lamps General Service for 230- and 250-Volt Circuits, Revision of C78.101-1949

Specifications for Fluorescent Lamp Starters, Revision of C78.180

Method of Testing Fluorescent Lamp Starters, Revision of C78.181

Code for the Designation of Photo Lamps, C78.370

Dimensional and Electrical Characteristics of 90-Watt T-17 Preheat Start Fluorescent Lamps, Revision of C78.-411-1955
Sponsor: Electrical Standards Board

In Standards Board—

Measurement of Aspect Ratio and Geometric Distortion of Television Cameras and Picture Monitors, C16.23

Definitions of Terms for Audio Techniques, ASA C16.24; 54 IRE 3.S1

Definitions of Television Signal Measurement Terms, C16.27; 55 IRE 23.S1
Sponsor: Institute of Radio Engineers

Definitions of Terms of Electron Tubes, C60.9

Definitions of Terms of Magnetrons, C60.10

Definitions of Semiconductor Terms, C60.14; 54 IRE 7.S2
Sponsor: Joint Electron Tube Engineering Council

Brushes for Electrical Machines, Revision of NEMA CB1-1951; ASA C64.1-1950
Sponsor: National Electrical Manufacturers Association

Withdrawal Being Considered—

Machine Tool Electrical Standards, C74-1942
Sponsor: National Machine Tool Builders' Association

Dimensional and Electrical Characteristics of 100-Watt T-17 Preheat Start Fluorescent Lamp, C78.410-1955
Sponsor: Electrical Standards Board

GAS-BURNING APPLIANCES

American Standard Published—

Approval Requirements for Central Heating Gas Appliances, Volume IV, Gravity and Fan Type Vented Recessed Heaters, Z21.13.4-1955 (Revision of Z21.13.4-1953, and Addenda Z21.13.4a-1954) $2.00
Sponsor: *American Gas Association*

HIGHWAY TRAFFIC

American Standard Approved—

Railroad Highway Grade Crossing Protection, D8.1-1956 (Revision of D8.1-1951)
Sponsor: Association of American Railroads

Standards for the construction, installation, and maintenance of warning signs, automatic and nonautomatic signals, and automatic gates for use at railroad highway grade crossings.

MATERIALS AND TESTING

In Board of Review—

Methods of Test for Weight of Coating on Zinc-Coated (Galvanized) Iron or Steel Articles, ASTM A 90-53; ASA G8.12

Recommended Practice for Safeguarding Against Embrittlement of Hot Galvanized Structural Steel Products and Procedures for Detecting Embrittlement, ASTM A 143-46; ASA G8.13

Specifications for Zinc Coating (Hot-Dip) on Iron and Steel Hardware, ASTM A 153-53; ASA G8.14
Sponsor: American Society for Testing Materials

Reaffirmation Being Considered—

Specifications for Zinc-Coated (Galvanized) Iron or Steel Tie Wires, ASTM A 112-33; ASA G8.4-1935

Specifications for Zinc-Coated (Galvanized) Iron or Steel Farm-Field and Railroad Right-of-Way Wire Fencing, ASTM A 116-48; ASA G8.9-1948

Specifications for Zinc-Coated Iron or Steel Chain-Link Fence Fabric Galvanized After Weaving, ASTM A 117-33; ASA G8.5-1935
Sponsor: American Society for Testing Materials

MECHANICAL

In Board of Review—

Slotted and Recessed Head Wood Screws, B18.6.1 (Revision of B18.6-1947)
Sponsors: Society of Automotive Engineers; The American Society of Mechanical Engineers

In Standards Board—

20-Degree Involute Fine-Pitch System for Spur and Helical Gears, Revision of B6.7-1950

Inspection of Fine-Pitch Gears, Revision of B6.11-1951
Sponsors: American Gear Manufacturers Association; The American Society of Mechanical Engineers

Ring-Joint Gaskets and Grooves for Steel Pipe Flanges, Revision of B16.20-1952
Sponsors: American Society of Mechanical Engineers; Heating, Piping and Air Conditioning Contractors National Association (The Mechanical Contractors Association of America); and the Manufacturers Standardization Society of the Valve and Fittings Industry

Conveyor Terms and Definitions, B75
Sponsor: Conveyor Equipment Manufacturers Association

OFFICE EQUIPMENT

American Standard Published—

Basic Sheet Sizes and Standard Stock Sizes for Bond Papers and Index Bristols, NOMA N2.1-1955; ASA X2.2.1-1955 $.25
Sponsor: National Office Management Association
Basic sizes and definition of terms

PHOTOGRAPHY

In Standards Board—

16mm Film Perforated Along Two Edges, Usage in Camera, PH22.9 (Revision of Z22.9-1946)

16mm Film Perforated Along Two Edges, Usage in Projector, PH22.10 (Revision of Z22.10-1947)

Picture Printer Aperature for Contact Printing 16mm Positive from 16mm Negative (Revision of Z22.48-1946)

Magnetic Coating of 8mm Motion-Picture Film, PH22.88

200-Mil Magnetic Sound Record on 16mm Film Base Perforated One Edge, PH22.97

Magnetic Coating of 16mm Film Perforated Along Both Edges, PH22.101
Sponsor: Society of Motion Picture and Television Engineers

SAFETY

American Standards Published—

Safety Procedures for Quarries, M28.1-1955 $1.50
Sponsor: National Safety Council

Code for the Prevention of Dust Explosion in Flour and Feed Mills, Z12.3-1956 $.35

Code for the Prevention of Dust Explosions in Terminal Grain Elevators, Z12.4-1956 $.35

Code for the Prevention of Dust Ignitions in Country Grain Elevators, Z12.13-1956 $.25
Sponsor: National Fire Protection Association

Reaffirmation Approved—

Safety Code for Manlifts, A90.1-1949 R1956
Sponsors: American Society of Mechanical Engineers; Association of Casualty and Surety Companies

WHAT'S NEW ON AMERICAN STANDARDS PROJECTS

Standardization of Gears, B6—

Sponsors: American Gear Manufacturers Association; American Society of Mechanical Engineers

A proposed revision of Section 2 of American Standard B6.6-1946 on Gear Tolerances and Inspection has been sent to the sectional committee for vote. The section covers bevel and hypoid gears.

Subcommittees are working on gear tolerances and inspection methods and recommended backlash for worms and worm gears; pin measurement tables for involute spur gears; and a system for coarse pitch worms and worm gears.

The sectional committee is also voting on a proposed revision of American Standard B6.11-1951, Inspection of Fine Pitch Gears; and on a revision of American Standard B6.9-1950, Design for Fine Pitch Worm Gearing.

A revision of the American Standard B6.7-1950 on 20-Degree Involute Fine Pitch System for Spur and Helical Gears is before ASA's Board of Review for final approval as American Standard.

Deep Well Vertical Pumps, B58—

Sponsor: American Water Works Association

The sponsor has requested an extension of the scope of this project to include submersible pumps and a field test code. The present scope covers: "The standardization of materials and dimensions for the head-and-driver assembly, the column-shaft assembly or conductor system, and the pump unit proper, of deep well vertical pumping equipment designed for lifting water at normal temperature from underground sources; and the standardization of capacity ratings for such pumping equipment."

The request has been referred for comment to the co-chairmen of the committee, M. H. Owen, Senior Mechanical Engineer, American Water Works Association, and P. H. Brown, Chief Engineer, Johnston Pump Company.

Identification System for Anti-Friction Bearings, B54—

Sponsor: Anti-Friction Bearing Manufacturers Association

A proposed revision of the Bearing Identification Code is now being completed for consideration by Technical Committee 4 of the International Organization for Standardization. Sections 1, 3, 4, and 5 have been sent to Working Group 1 of TC4. Section 2 on Bearing Ring Modifications is still underway.

Identification Code for Diamond Wheel Shapes, B74—

The Grinding Wheel Institute has submitted its proposed Identification Code for Diamond Wheel Shapes for approval as American Standard under the Existing Standards Method. The American Standards Association has circulated the proposed standard to organizations having a substantial interest in diamond wheels for their opinion on whether it should be approved.

Power Switchgear, C37—

Sponsor: Electrical Standards Board

O. B. Vikoren, Philadelphia Electric Company, has been named secretary of Sectional Committee C37, succeeding G. S. Lunge. Mr Vikoren is a native of Bergen, Norway and was graduated with the degree of Electrical Engineer from the University of Dresden, Germany, in 1924. He came to the USA in 1926. He has been with the Philadelphia Electric Company since that time, advancing to Senior Engineer in the Electrical Engineering Division. He became a citizen of the USA in 1931 and was licensed as Professional Engineer in Pennsylvania in 1942.

Mr Vikoren has been secretary of the EEI-AEIC-NEMA Joint Committee on Power Circuit Breakers since 1952. As a member of the American Institute of Electrical Engineers he has been active on a number of standards committees dealing with power circuit breakers and other protective equipment. He has

O. B. Vikoren

also served as secretary of the Committee on Electrical Switching and Switchgear of the Association of Edison Illuminating Companies. He was a United States delegate to the meeting of the International Electrotechnical Commission at Scheveningen, Holland, in 1952 and at the IEC Golden Jubilee in Philadelphia in 1954. He took an active part in making the Jubilee a success.

V. L. Cox, General Electric Company, Philadelphia, is chairman of Sectional Committee C37.

The committee is now voting on a proposed Schedule of Preferred Ratings, C37.16, and on Preferred Pick-up Calibrations and Trip Delay Settings, C37.17. These proposed standards are intended to be added to the series of standards on Low Voltage Air Circuit Breakers approved and published in 1954. These are identified as American Standards C37.13-1954; C37.14-1954; and C37.15-1954.

Transformers, C57—

Sponsor: Electrical Standards Board

The Guide for Loading Oil-Immersed Distribution and Power Transformers, just published as an appendix to the American Standard on Power and Distribution Transformers, is one of the sections now being issued as a coordinated series

of American Standards and appendices.

Purpose of the Guide is to give information which will assist in the economical use of transformer equipment under various conditions of service. It gives information on the extent and duration of loading for normal life expectancy under various conditions. Short-time loading of transformers with moderate sacrifice to life expectancy is also covered.

Formulas are given for calculating oil and hot-spot temperature rises before and after conditions become constant.

In the new series, American Standards will be available for instrument transformers, power and distribution transformers, constant-current transformers of the moving coil type, step-voltage and induction-voltage regulators, current-limiting reactors, general purpose specialty transformers, and rectifier transformer equipment. All requirements for each type of transformer, regulator, and reactor will be included in an American Standard with its accompanying test code and guide, issued as appendices.

The entire series will be available in a loose-leaf binder, with leatherette cover.

The newly published Guide for Loading Oil-Immersed Distribution and Power Transformers, C57.92, is now available at $1.25.

Terminology for Automatic Controls, C85—

Sponsor: The American Society of Mechanical Engineers

H. A. Miller, Raytheon Manufacturing Company, Waltham, Mass., has been named chairman of Subcommittee 1. This subcommittee is to work on terminology for types and components.

Chairmen of the three other sub-Committees (MAG OF STDS, Oct. 1955, p 318) are: Subcommittee 2, Signals, D. H. Smith, Bell Telephone Laboratories; Subcommittee 3, Modes and parameters, W. I. Caldwell, Taylor Instrument Company; Subcommittee 4, Behavior and presentation, H. L. Mason, National Bureau of Standards.

Standards Outlook

by LEO B. MOORE

Purchasing

Have you talked with your purchasing agent lately? This is one question standards engineers should regularly ask of themselves. Purchasing is a real friend of the standards man, and when all else seems to fail — in design, manufacturing, marketing, or wherever — purchasing will offer more than a sympathetic ear. The men in purchasing can and will be of great help to every company standards effort.

Many of the finest standards programs in this country were envisioned and developed by or through the efforts of purchasing departments. Several such programs rest, organizationally, in the purchasing function and present a clear indication of the long-term and continuing alliance of purchasing and standards activities. Even more, in these facts every standards engineer can find a clue to at least one place in the company where the value of standards is known and appreciated.

Purchasing stands at the focal point of those activities and responsibilities which generate its interests in standardization. Purchasing is the function where the firm's money is being spent or saved and where the firm's problems of communication are self evident. Purchasing not only exchanges the dollars of the company for goods or services, but tries to do this in a manner designed to build goodwill for the business. Its job is to conserve dollars and to improve the esteem in which the company is held. Nothing interferes more with these objectives than the lack of proper standards.

Much of the money spent in purchasing is for materials, and this means all materials — those that go into maintenance, shipping, and office operations, as well as production. The purchasing agent has an idea of the variety and duplication that exists in the total material picture, and will know how much material is ordered in accordance with standards, particularly national and association standards. There will be some information available as to the number and kinds of special orders coming through which may indicate the future need for new standards. The purchasing agent certainly will know those cases in which he wishes that a standard were available to ease his job.

Many of purchasing's problems of communication center around the standards, specifications, and drafting practices of the company. These documents and techniques serve as the basis for contacts with suppliers; such contacts suffer immeasurably if the documents are not effective.

Standardization cannot be taught, in my opinion, without giving special consideration to purchasing. For me, this task has been tremendously eased through the publications of purchasing agents and the National Association of Purchasing Agents. Standards, in practice or in teaching, cannot be truly effective without particular concern for purchasing.

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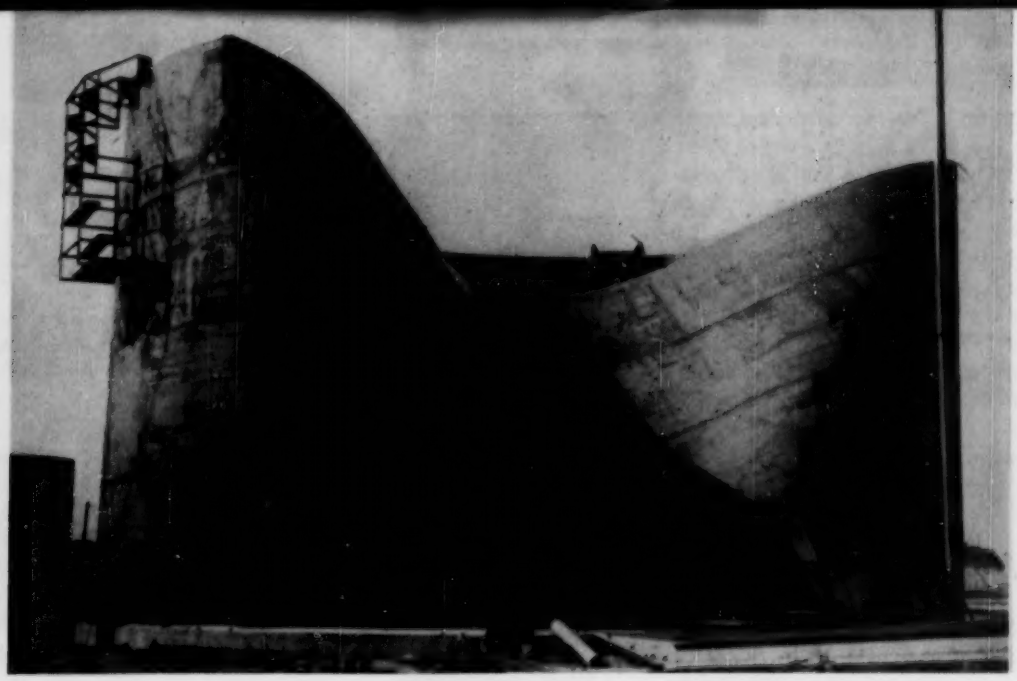
Mr Moore is Assistant Professor of Industrial Management at Massachusetts Institute of Technology where he teaches a full-term course in industrial standardization.



WILL YOUR BUILDING STAND UP

under snow loads, wind, earthquakes, storage of equipment and materials, operation of machinery?

NOW UP TO DATE

The American Standard Minimum Design Loads in Buildings and Other Structures, A58.1-1955, sponsored by the National Bureau of Standards, includes most comprehensive data on effect of wind available today. It tells what factors to consider in designing and constructing buildings "to support safely all loads without exceeding the allowable stresses for the materials of construction in the structural members and connections."

GIVES IN DETAIL

What to include in figuring "dead" loads; what "live loads" (in pounds per square foot) to count on for different types of occupancies; how to figure loads for different types of roofs; what pressures to expect on basement walls and floors; how to figure wind pressures for walls, roofs, chimneys, tanks and towers, signs and outdoor display structures; how to protect buildings against earthquake damage.

MAPS SHOW

Snow loads to expect in different zones throughout the country; areas where different wind pressures can be expected; where destructive earthquakes occur.

TABLES LIST

Uniformly distributed live loads; wind pressures for various heights above ground; design dead loads; design loads for materials.

Send for your copy of American Standard A58.1-1955 at $1.50 per copy.

American Standards Association, Incorporated
70 East 45 Street
New York 17, N. Y

Syracuse, N. Y.—High winds in 1954 caved in petroleum storage tank, 25,000-barrel capacity, sheet steel, 61 ft diameter, 48 ft high. Tank was under construction.
Wide World photo